

The CHEMIST AND DRUGGIST

For Retailer, Wholesaler and Manufacturer

AUGUST 31 1957

H. & T. KIRBY
OF LONDON
*Pharmaceutical
Manufacturers*

OWN MATERIALS
PROCESSED

•
SPECIAL
FORMULÆ
PREPARED

for

PILLS · TABLETS · CAPSULES

PESSARIES · SUPPOSITORIES · PENICILLIN PRODUCTS
OINTMENTS FOR THE EYE · SOFT GLYCERIN LOZENGES
STERILE PRODUCTS · SOLUTION TABLETS
PACKED PHARMACEUTICALS

H. & T. KIRBY & CO. LTD.

EST. 1866

Manufacturing Chemists

WILLESDEN GREEN, LONDON, N.W.2

Phone : Willesden 1146. Grams : Kirbilim, Norphone, London

Code : Bentley's (2nd)

Import & Export
Inquiries
Invited

BONUS OFFER

The BONUS consists of this well-made and durable DISPLAY STAND together with 9 tins of pastilles as follows:—
3 tins GEE'S LINCTUS PASTILLES
1 tin of each of the other 6 lines
and in addition an EXTRA BONUS of 1 DOZEN TINS OF POTTER'S CATARRH PASTILLES.
Each 9 dozen bonus parcel is pre-packed and selected, and contains the following:—
3 doz. tins GEE'S LINCTUS PASTILLES
1 doz. tins of each of the other 6 lines.

BONUS TERMS from SEPT 2 - NOV 30

Potter's pharmaceutical pastille range

This attractive and 9 TINS of Pastilles **FREE** with every

MINIMUM ORDER of 9 DOZEN TINS

WHOLESALE PRICE
Per 10/6 Dozen

DISPLAY STAND



EXTRA BONUS
1 doz. tins of Potter's Catarrh Pastilles **FREE** with every MINIMUM ORDER

POTTER'S PHARMACEUTICAL PASTILLE RANGE

GEE'S LINCTUS B.P.C.
GLYCERIN of THYMOL
GLYCERIN & BLACKCURRANT
GLYCERIN, LEMON & HONEY
EUCALYPTOL & MENTHOL
CHERRY COUGH
ANTISEPTIC THROAT

The sale of this parcel will show a **RETURN** of £9.

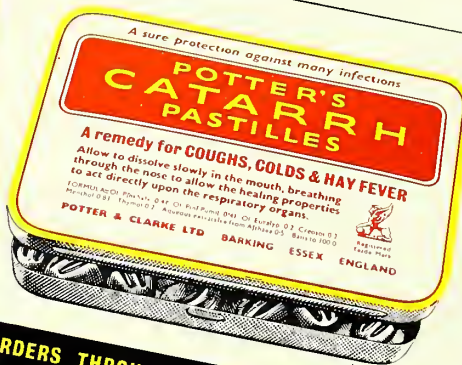
The **COST** of this parcel is £5.8.9
(9 doz. @ 10/6 = £4.14.6)
(P.T. inc. Bonus tins = 14.3)
PROFIT £3.11.3.

ORDERS THROUGH WHOLESALE ONLY

BONUS OFFER



Potter's Catarrh Pastilles are packed in attractive display tins each containing one dozen tins in handy size for pocket or hand-bag. Retail 2/- per tin. Trade 13/6 per dozen (plus Purchase Tax).



POTTER'S CATARRH PASTILLES

and
POTTER'S CRYSTALLISED CATARRH PASTILLES

ORDERS THROUGH WHOLESALE ONLY ON ORDER FORM ATTACHED...

BONUS TERMS
One tin in every dozen is **FREE!**

are available on **MINIMUM QUANTITIES OF 3 DOZEN TINS** of either variety or assorted

For a minimum parcel of 36 tins you will be charged for only 33 and pro rata for larger quantities.

BONUS TERMS from SEPT. 2 until NOV. 30



POTTER & CLARKE LTD. River Road, Barking Essex. Tel: RIPpleway 3041. Telegrams: Horehound, Phone, Barking.

Solprin

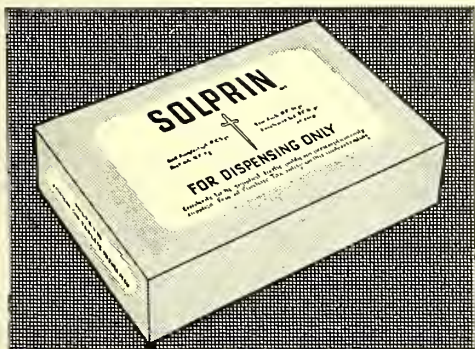


provides calcium aspirin
in pure
and stable form

The trend of medical opinion in this matter is evident. Soluble aspirin is being prescribed more and more. Solprin meets the increasing need for a soluble form of aspirin of consistently high quality.

Solprin dissolves rapidly in water to form a solution of calcium aspirin that is substan-

tially neutral. It has proved rapid and reliable in its analgesic effect, and is far less likely to provoke the gastric irritation sometimes caused by insoluble forms of aspirin. Solprin is not advertised to the public and is available only on prescription. The claims of Solprin are continuously kept before doctors.



SOLPRIN

REGD.

Aspirin in soluble, stable form

Available in 500 tablet packs

Solprin is packed in units of 10 tablets (in foil), 50 units to the pack. The N.H.S. basic price for this pack is 12/6. It is available only on prescription and only in Gt. Britain and Northern Ireland.

RECKITT & COLMAN LTD., HULL & LONDON (PHARMACEUTICAL DEPT., HULL)

Lipstick News from *Revlon*

This striking half-page advertisement in the
DAILY EXPRESS
 on September 6th

NEW *Revlon* DISCOVERY

for the woman who
 wishes she didn't have
 to put lipstick on
 3 or 4 times a day!

Today... you can put
 radiant color on to stay
 all through the day
 without drying your lips!



Are you "the woman" who wishes she didn't have to put lipstick on... and on... and on... all through the day? Now you don't have to! You won't have to... with Revlon's new formula Lanolite Lipstick. It's the wonderfully new and different non-smear type lipstick - long-lasting and creamy, too. It puts lasting color up to stay all through the day—without drying your lips.

It's the only non-smear type lipstick combined with Lanolite, Revlon's exclusive moisture-protecting ingredient. Incredibly smooth, Lanolite Lipstick gives your lips the fresh, new look and feeling you simply must have for beauty.

And so long as you're wearing this new, creamy, long-lasting lipstick, your lips are playing!

Choose from 21 fabulous Revlon color notes



Non-Smear Lanolite or new creamy Lanolite Lipstick... * n.
 Lipstick in Lustrama cases from 1956 up.
 Refills available.

**Revlon's
 'Lanolite' Lipstick**
 THE NON-SMEAR TYPE

launches a powerful press campaign for Revlon Lipstick

More than **5,700,000**
 women readers of the **DAILY EXPRESS**
 will see this striking advertisement

Revlon the world's largest selling lipsticks
offer not 6...not 8...but 24 fabulous colors

for matching fingertips—Revlon Nail Enamel
in regular or frosted

Display and Sell!

Revlon's

'LANOLITE' LIPSTICK

the 'NON-SMEAR' type, for the woman who
wishes she didn't have to put lipstick on 3 or
4 times a day!

Revlon's

'LUSTROUS' LIPSTICK

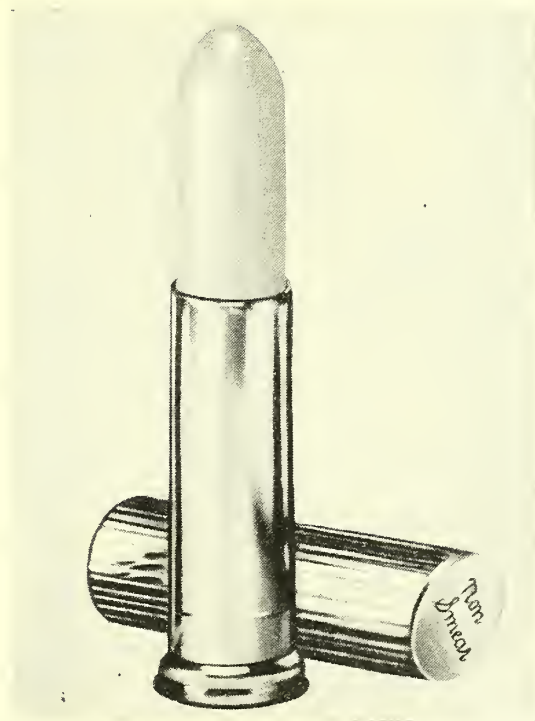
the new, soft, creamy formula, specially made
for sensitive lip

Revlon's

FUTURAMA

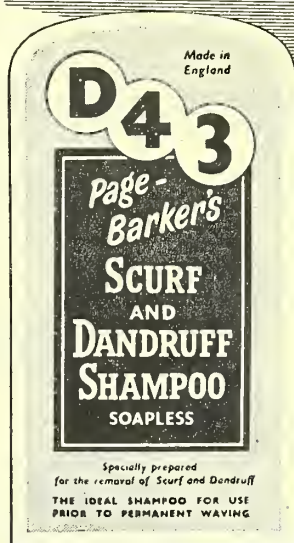
the beautiful case of lasting luxury, with ex-
clusive interchange refills.

Take advantage of this strong
advertising support for Revlon and —



Stock! Display! Sell Revlon Lipstick

Two absolute winners!

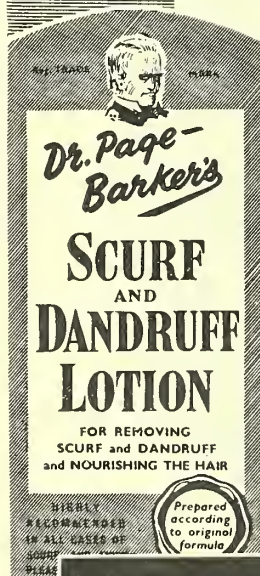


Dr. Page Barker. Everyone knows that name. It stands for quality. And it is quality and reputation that ensure repeated sales.

Dr. Page Barker's Scurf and Dandruff Lotion and D.43 Shampoo are known for their unfailing reliability in keeping the scalp clean and healthy. And healthy hair means hair with lustre and looks.

Stocking these popular lines, means that you have a share in the prestige and the profits!

A Page Barker Showcard, that will catch the customer's eye and remind him of his need is available on request.



THOS. CHRISTY & CO. LTD

North Lane, Aldershot, Hants.

'IMPACT' advertising
creating new sales records!

NERVONE

The New Nerve Nutrient

T.V. 'spots' on London and Midlands stations are now adding 'IMPACT' to the hard-selling press, poster and theatre campaign. Are your stocks of 'NERVONE' adequate?

OBTAINABLE FROM WHOLESALERS EVERYWHERE

MANUFACTURER'S OFFER OF STEEL SHELVING

- Brand new — Manufactured in our own works
- Shelves adjustable every inch
- Heavy gauge shelves will carry 400 lb. each
- Stove enamelled bronze green
- 6 shelves per bay — Extra shelves 8/- each
- Quantity discounts

72" High
34" Wide
12" Deep

Telephone:
69018/9

DELIVERED FREE £3 15s.

Ready for Erection

N. C. BROWN LTD.

SHELVING DIVISION • EAGLE STEEL WORKS
HEYWOOD • LANCs



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(continued overleaf)

A NEW QUICK-ACTING SHORT-TERM ANALGESIC

'Proponesin'

Tablets of α - Δ^3 -piperideino- β -hydroxy- γ -o-toloxo-propane hydrochloride

'Proponesin' is equivalent in potency to and more rapid in onset of action than the commonly used analgesics.

For relief of pain in Herpes Zoster
Dysmenorrhoea · Toothache · Headache
Sinusitis · Backache.

Each compression-coated tablet contains 100 mg. of active substance.

	PHARMACISTS	RETAIL
Bottle of 10 tablets	1/8	3/-
" " 50 "	5/-	9/-
" " 250 "	17/6	—

(incl. Purchase Tax)

THE BRITISH DRUG HOUSES LTD. LONDON N. 1

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Your customers need look no further
when your stock includes . . .

BARBER PRESCRIPTION HEALTH LAMPS



—their automatic choice
with no after-sales worries.

FROM 59/6 TO £25 (TAX FREE)
THE RANGE IS COMPLETE

MODEL 596 Real quality at low cost! Infra Red/Luminous Heat, powerful 350 watt generator. 59/6.

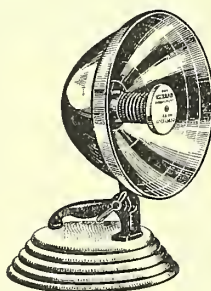
MODEL POPULAR Another low priced, portable Infra Red/Luminous Heat Lamp, 10" parabolic reflector. £4.10.0.

MODEL 325 Infra Red/Luminous Heat DeLux Model. 12½" reflector. Weighted base houses switch-gear. £8.10.0.

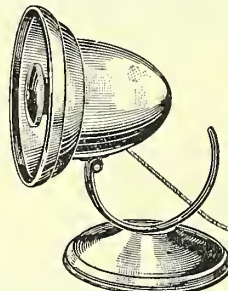
MODEL 425 Telescopic, floor-stand Model. Infra Red/Luminous Heat. Fully adjustable. £9.15.0.

MODEL 365 Ultra Violet or Infra Red at the touch of a switch. Fully adjustable. 13gns.

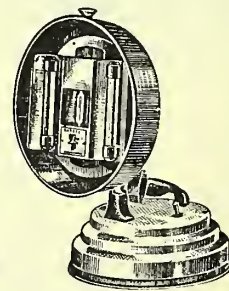
MODEL 465 Telescopic, floor-stand Model. 3-stage control from one lamp. Ultra Violet/Infra Red or Luminous Heat. £25.



'POPULAR'



MODEL '596'



MODEL '365'

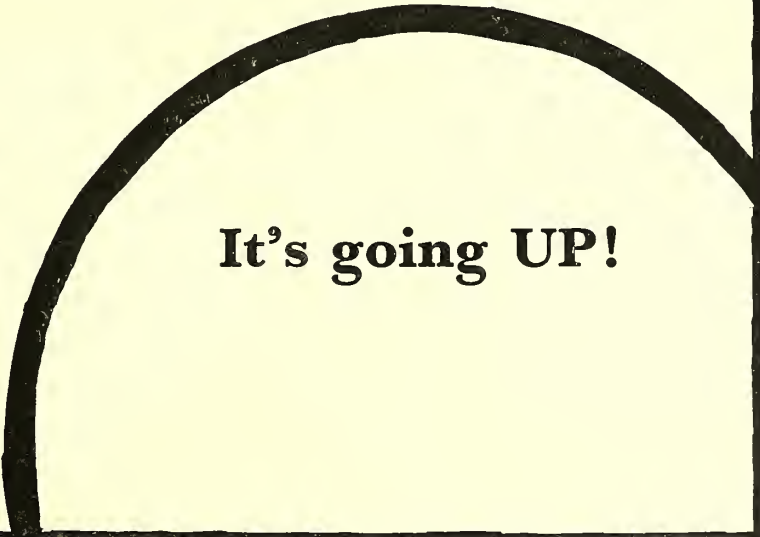
★ YOUR USUAL WHOLESALE IS READY TO SUPPLY BUT ORDER NOW TO AVOID DELAYS LATER
DESIGNED, PRODUCED AND MARKETING BY:—

BARBER ELECTRICAL SERVICES LTD., BIRMINGHAM, 16

Telephone: EDGBaston 3511 (P.B.X.).

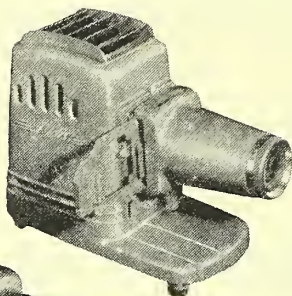
Telegrams: Barberlamp, B'ham, 16.

One of the products in your shop, Product 'A', is going to be advertised as it has never been advertised before!



It's going UP!

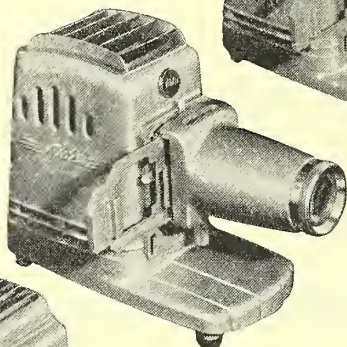
ALDISETTE I
£13 · 13 · 0



CHOOSE



ALDISETTE 2
£15 · 15 · 0



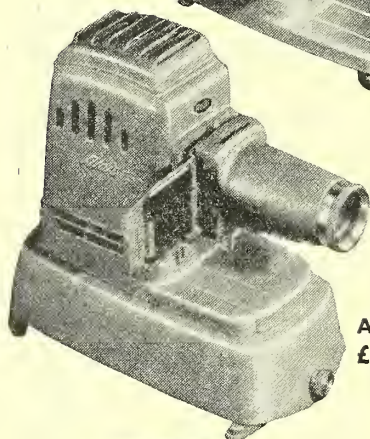
FOR LIFE!

There is an Aldis to fit every need and suit every pocket . . . from 150 to 1000w., at prices from £13 · 13 · 0 to £29 · 18 · 6. For showing colour transparencies in the family circle, or for projection in a large hall, it's an Aldis . . . for life!

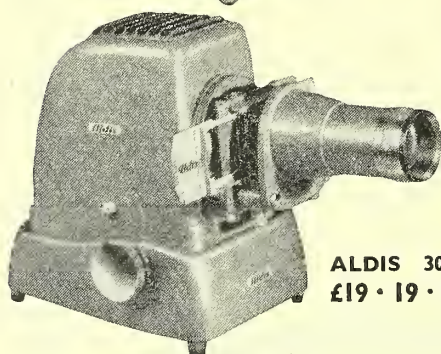
Aldis projectors sell all the year round, but you will need "above average" stocks for the peak season—September, October.

Why not order now?

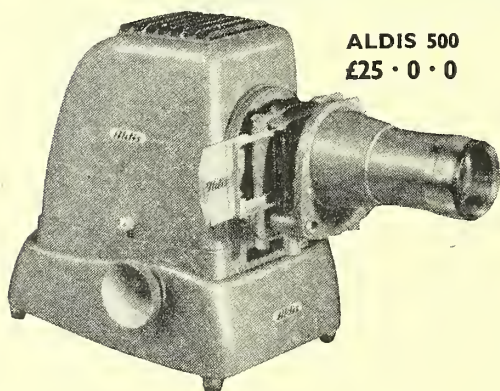
ALDISETTE 3
£21 · 17 · 6



ALDIS 300
£19 · 19 · 0

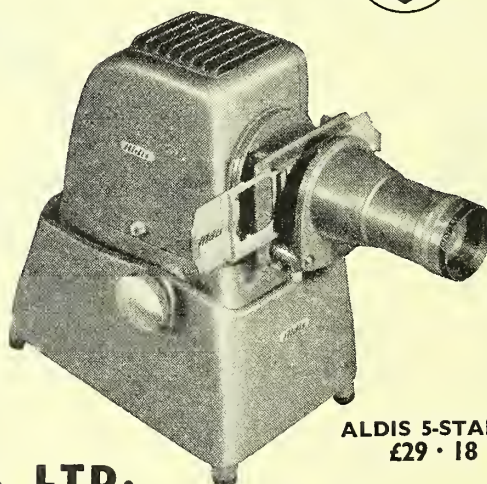


ALDIS 500
£25 · 0 · 0



AIREQUIPT AUTOMATIC SLIDE CHANGER

Fits all Aldis 35mm Projectors. Complete with magazine and metal slide frame £4 · 15 · 0 Extra magazines 14/9 each. Adapt for Aldis 300, 500 and 5-Star, 7/6.

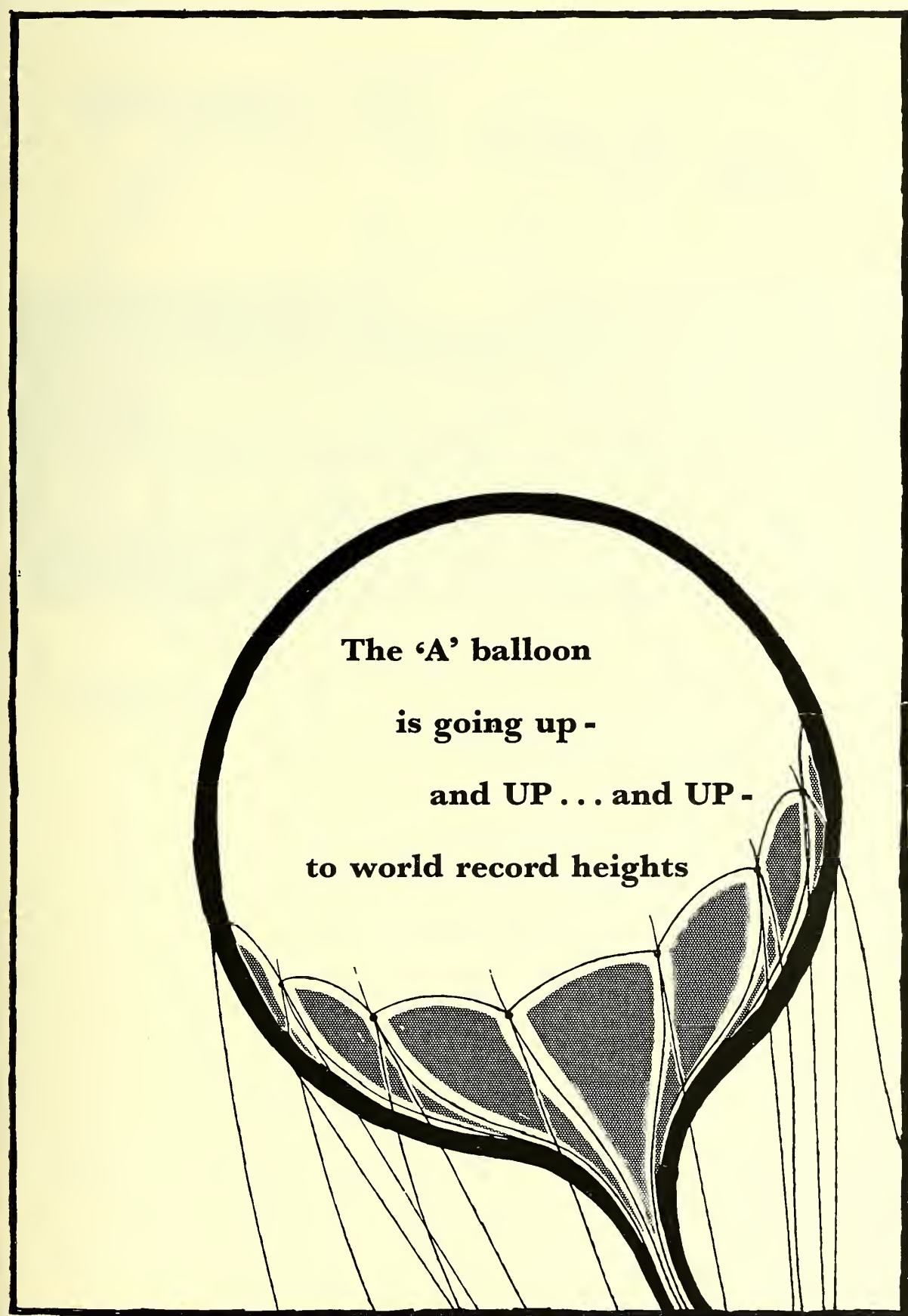


ALDIS 5-STAR 1000
£29 · 18 · 6

NEVILLE BROWN & CO. LTD.

77 NEWMAN STREET, LONDON, W.1. Telephone: LAN 7161 (10 lines)

**The 'A' balloon
is going up -
and UP . . . and UP -
to world record heights**





for Better Wrapping

Reed

PAPER GROUP

'AYLESFORD'
PURE KRAFT PAPER

MADE AT AYLESFORD PAPER MILLS · KENT

— and the price is right!



ASK YOUR PAPER MERCHANT FOR SAMPLES

*If any difficulty, write to us for samples,
but orders can be dealt with only
through the Trade*

Sales Organisation :

E. R. FREEMAN & WESCOTT LTD

BLACKFRIARS HOUSE, NEW BRIDGE STREET, LONDON, E.C.4. Telephone: FLEet St. 7701-5

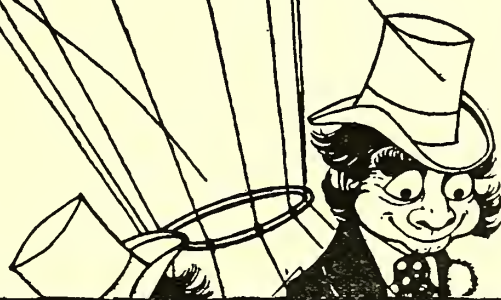
Reed
PAPER GROUP

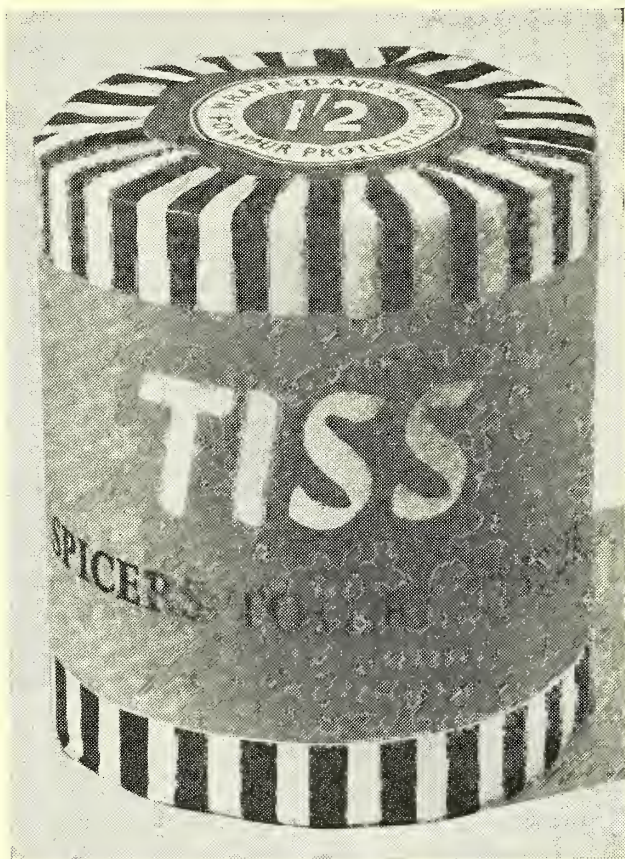
**OUTPUT OF 'AYLESFORD' KRAFT PAPER
EXCEEDS 3,000 TONS PER WEEK**

*Largest producers in the world of Machine Glazed (M.G.) Kraft
Largest producers in Europe of Unglazed Kraft*

**4 times higher
than ever before.**

**Never has Product 'A'
had such
gigantic promotion**





TISS

*... a new
soft tissue*

The introduction of the new TISS Soft Tissue completes Spicers quality range of toilet papers; also, the well known AI toilet papers (in rolls and flat packs) have been handsomely re-styled to link up with, and take full advantage of, Spicers National advertising. This self-service dispenser has been designed to occupy the minimum amount of space on the counter or wall, and is offered (filled with 5 TISS rolls, 6 AI flat packs, and 6 AI rolls) at a special bonus price to retailers.

SPICERS TISS

SOFT TISSUE ROLL

Spicers Tiss Soft Tissue is a single ply paper in its purest and most gentle form. A paper that looks and feels as pure and soft as it proves to be. In keeping with the excellence of the product it is dressed in an attractive sealed wrapping which makes a first-class display.

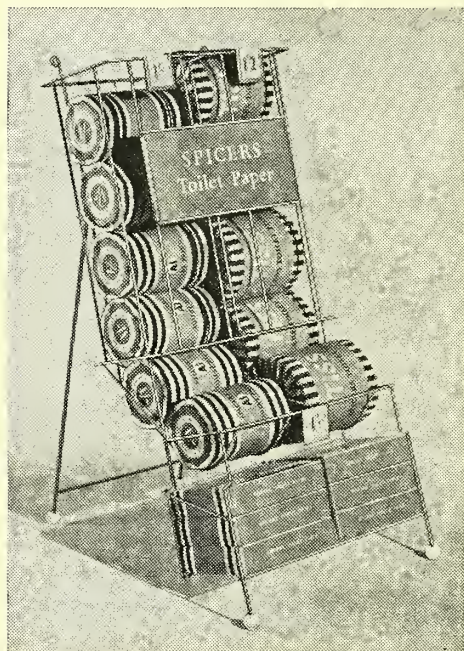
Retail Price 1s. 2d • Packed in 3-doz. cartons

Distributors for the Pharmaceutical Industry :—

EVANS MEDICAL

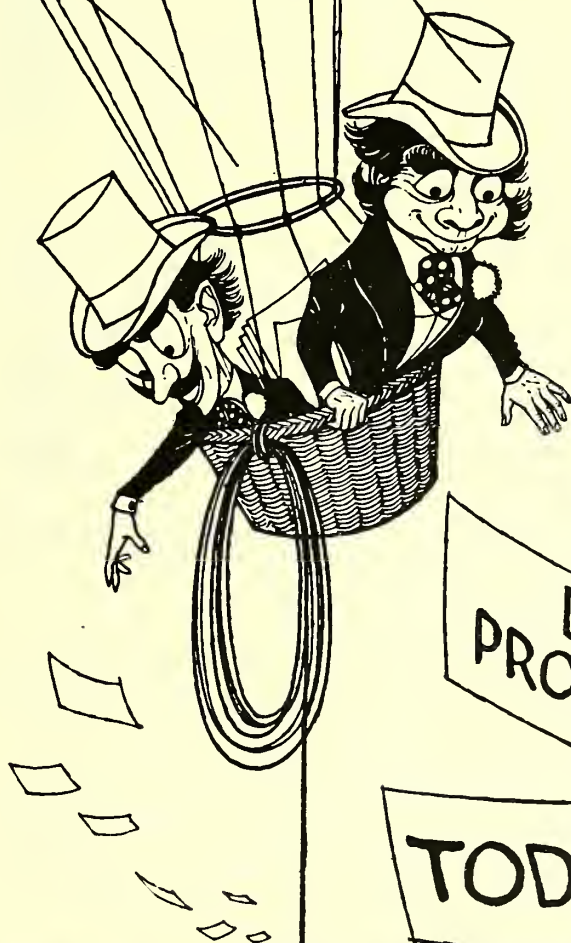
EVANS MEDICAL SUPPLIES LIMITED • SPEKE • LIVERPOOL 19
TELEPHONE: HUNTS CROSS 1881

ALSO AT RUISLIP, NEWCASTLE-UPON-TYNE AND SWANSEA
GLASGOW AGENT: THE NEW APOTHECARIES CO. LTD., GLASSFORD STREET



TBW/531A

THE SKY'S THE LIMIT



STOCK
UP-

DISPLAY
PRODUCT 'A'

TODAY!

1 9 5 7

It's Golden Jubilee Year

Sell the size

for the job!



By Appointment to
H.M. The Queen
Manufacturers of Vacuum Vessels

for **THERMOS** sales
REGISTERED TRADE MARK

The Thermos national advertising campaign is now running. It features the four sizes of flask models. Recommend the correct size for the job and sell more flasks!



MINOR SIZE

8 fluid ounces
No. 14½—5s. 11d.
No. 15½—6s. 6d.



MAJOR SIZE

26 fluid ounces
No. 1414—9s. 9d.
No. 1515—10s. 8d.

STANDARD SIZE

16 fluid ounces
No. 14—6s. 7d.
No. 15—7s. 2d.



FAMILY SIZE

36 fluid ounces
No. 14Q—12s. 0d.
No. 15Q—12s. 10d.



The No. 15 range have the snap-on polythene stopper.
The No. 14 range are fitted with moulded top corks.
All fitted with the wonderful polythene pourer lip.

THERMOS
REGISTERED TRADE MARK

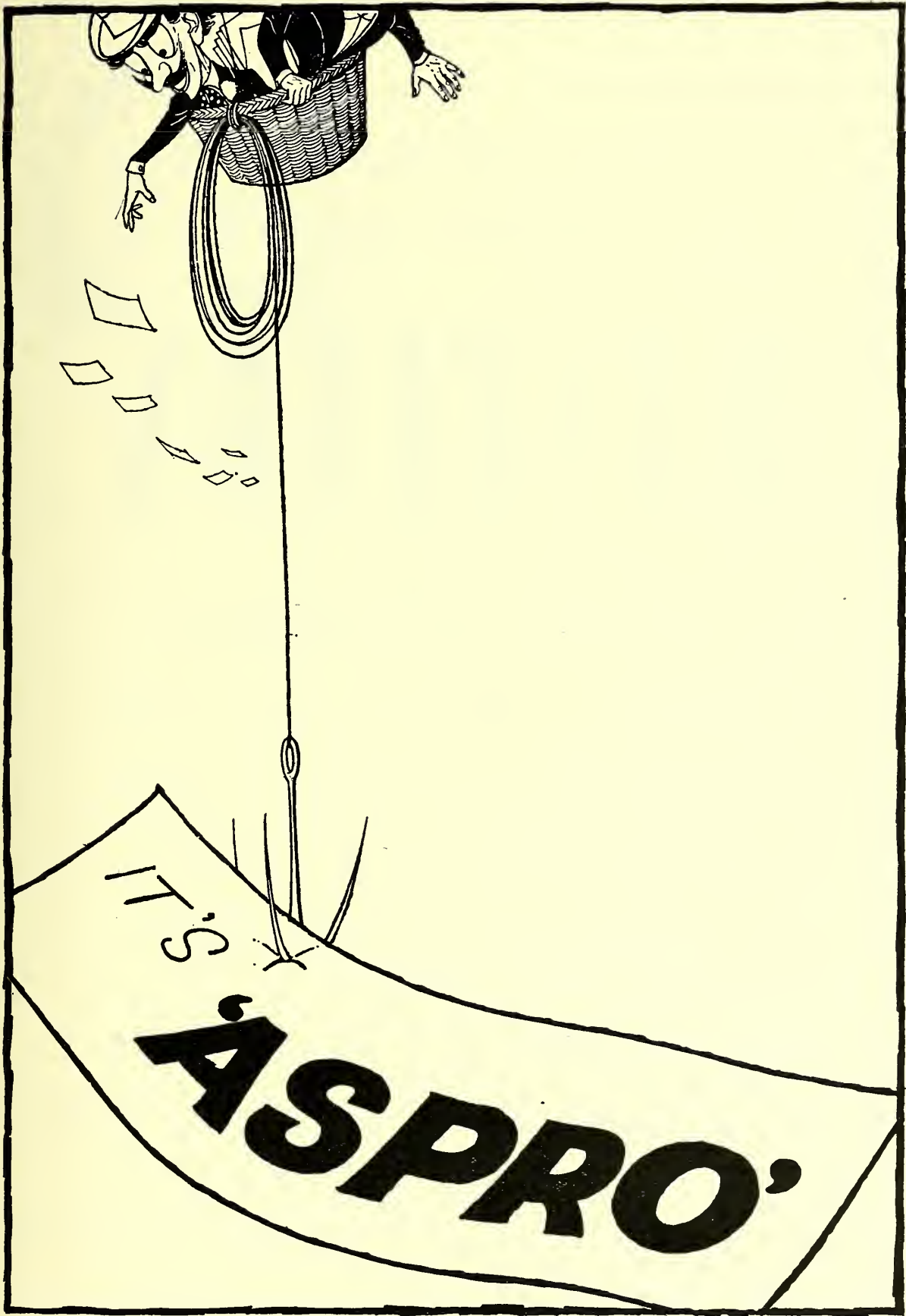
THE RELIABLE BRAND OF VACUUM VESSELS

THERMOS LIMITED,
SEYMOUR ROAD, LONDON, E.10
Leytonstone 4061

FREE

SPECIAL THERMOS
DISPLAY UNIT
ASK YOUR
WHOLESALE
FOR DETAILS





*Oral treatment
of diabetes mellitus*

RASTINON

» H O E C H S T «

T O L B U T A M I D E

TO DATE supplied only to hospitals, Rastinon »Hoechst« tablets are now available on form E.C.10 for those patients who have been stabilized on the drug under strict medical supervision.

Only certain diabetic patients are suitable for treatment with Rastinon »Hoechst«; Tolbutamide.

Although not yet a scheduled poison, the co-operation of all is requested in seeing that Rastinon »Hoechst« tablets are not supplied to patients unless under close medical supervision.

PACKS Bottles of 100 tablets (Trade price 26/3 each)

Bottles of 500 tablets (Trade price 123/9 each)

You may order from your usual wholesaler.

HOECHST PHARMACEUTICALS LIMITED
SLOUGH

Distributed in the United Kingdom by

HORLICKS LIMITED, SLOUGH, BUCKS.

from whom further information may be obtained on request



Halos for all

Although primitive methods of permanent waving were employed by the Ancient Egyptians, it was not until Karl Nessler invented his borax method¹

in 1909 that the technique assumed its modern form. The locks of hair were wound on a form, and placed in a tube filled with borax which was then baked hard in a cylindrical electric heater. The success of this early achievement led directly to the many systems of permanent waving so widely used today, and to attractive new hair styles.

Borax and boric acid have since been used in many other ways for the care and beauty of the hair. Their mildly antiseptic action plays an important part in the cleansing action of rinses and shampoos² and antiseptic scalp lotions,³ and they have contributed once again to the art of permanent waving in new, odour-free permanent waving solutions.⁴ With their many safe and versatile properties, borax and boric acid will continue to hold an important place in cosmetics and pharmacy.



B.B. O'Three

1. 'The Art and Craft of Hairdressing'. (New Era Publishing Co. Ltd.)
2. PHARMACEUTICAL JOURNAL, March 11th, 1933, page 203.
3. 'War-time cosmetic formulas: VIII Hairdressings' CHEMIST & DRUGGIST, June 28th, 1941, page 376.
4. U.S. Patent 2776760.

20 MULE TEAM

BORIC ACID

& BORAX

BORAX CONSOLIDATED LIMITED

BORAX HOUSE • CARLISLE PLACE • LONDON • SW1

VICTORIA 9070



20 Mule Team Registered Trademark

TGA BX 128

C



As from September

a modern fragrance created and brought to the

Forget your sales figures for perfume. No-one ever really bought perfume till now.

Now they will. Now you will see how perfume really can sell.
Primitif is going to revolutionise your ideas of big perfume sales.

The fragrance itself is sensational. The presentation superlatively.

The promotion the most compelling, the most wide-spread that ever launched a new perfume.

And for the first time, the prices give a truly classic perfume a 100% mass market appeal.

As from September, when people say perfume, they'll mean Primitif.

MAX FACTOR

HOLLYWOOD • LONDON • PARIS

when people say perfume they'll mean

PRIMITIF

country by **MAX FACTOR**

TREMENDOUS IMPACT AND COMPLETE COVERAGE

are the details of a promotion that reach every perfume-conscious woman in the country. With unforgettable impact.

IMPASSIVE LAUNCH

concentrated peak-period showings for the Primitif film on the London, Lancashire, Yorkshire and Scotland stations. Not once but many times! Dramatic full-page, full-colour advertisements in Vogue, Harper's Bazaar, Vanity Fair and Woman. Combined readership more than 12,000,000 women. Half-pages and other large spaces in the important provincials — and that's great local impact.

INTENSE FOLLOW-UP

More concentrated T.V. showings.

More full-page, full-colour advertisements in Modern Woman, Woman & Beauty, Vanity Fair and Woman's Own. Another 10,000,000 plus readers!

More half-pages in all the most important provincial newspapers, giving complete coverage even outside the T.V. areas.

All this plus specially designed advertisements for stockists and some of the most attractive display material even Max Factor has offered. Never before has perfume had such a compelling campaign behind it!



Primitif Perfume 8/1
Parfum Cologne, 2 oz. 9/6 4 oz. 15/6

Primitif Talc 4/6



The COX organization has always been mindful of the advantages to be gained by the installation of modern equipment. In this illustration an operator is seated at a modern electronic tablet counting machine from which the filled bottles are passed to an automatic cotton wool inserting machine. These ingenious creations, apart from improving efficiency by increasing output, also ensure that the products you order from the House of COX are manufactured under the most up-to-date, hygienic conditions.



-keeps you ahead

**ARTHUR H. COX & CO. LTD.
BRIGHTON · ENGLAND**

One of the world's foremost tablet makers

The enduring
joy of
'married happiness'

... is no mere chance. True 'married happiness' comes with the abiding contentment that complete emotional fulfilment and freedom from anxiety bring. And it comes from the unique satisfaction of rearing happy, healthy children. These wise parents have learned the sound rules of family planning—just as thousands of other happy couples have learned it over the past 60 years. For they have a plan that is as simple as it is aesthetic. And it is no secret plan—their plan is a household word...

Rendells

Sold by Chemists everywhere, and made by
W. J. Rendell Ltd., Hitchin, Herts., who will be pleased to
send full explanatory literature in a plain envelope, on request.

PRESCRIPTION FORM
When ordering Rendells you may find it convenient to use this
Prescription Form. Simply cut it out and hand it to your chemist.
Please supply 1 box of Rendells (price 3/6)

The Rendell story — re-told 14 million times!

Here is your preview of the Rendell advertising message to be seen shortly by millions of couples in the national and provincial press—just one of a powerful series appearing regularly. Rendells dispensers are the 'clinchers' which will convert this publicity into sales. Let us send you our latest display material. You can be sure of its ethical approach. Make sure you send for it *today*, to:—

W. J. Rendell Limited, Hitchin, Herts

If a customer hands you a prescription form from one of these advertisements, please supply our literature as well.

BAND-AID Dressing

TRADE MARK

WINNERS

Remember the exciting BAND-AID Dressings competition? Competitors had to number selling points in correct order of importance and submit original slogans for BAND-AID First Aid Dressings.

HERE ARE THE RESULTS

FIRST PRIZE £100

Miss M. RICHARDSON, Failsworth Industrial Society Ltd.,
Failsworth, Nr. Manchester, Lancashire.

SECOND PRIZE £50

Mr. F. R. INNES, F. Nickson, Esq., M.P.S.
53 Bakewell Street, Derby, Derbyshire.

THIRD PRIZE £25

Miss M. CUPPER, W. W. Price Ltd.,
24 Comberton Hill, Kidderminster, Worcestershire.

Here are the three chief selling points decided by the judges :

1. Allows wounds to breathe — helps wounds to heal
2. Sticks fast and stays on longer
3. Washable — won't loosen in water

★ Over 85 per cent of entrants chose "Allows wounds to breathe" as the most important selling point for BAND-AID Dressings!

Johnson & Johnson



(GT. BRITAIN) LTD., SLOUGH

Competition



BAND-AID First Aid Dressings A WINNER for you, too!

Here are three good reasons why it pays to sell BAND-AID Dressings:

FIRST: Last year, sales doubled!

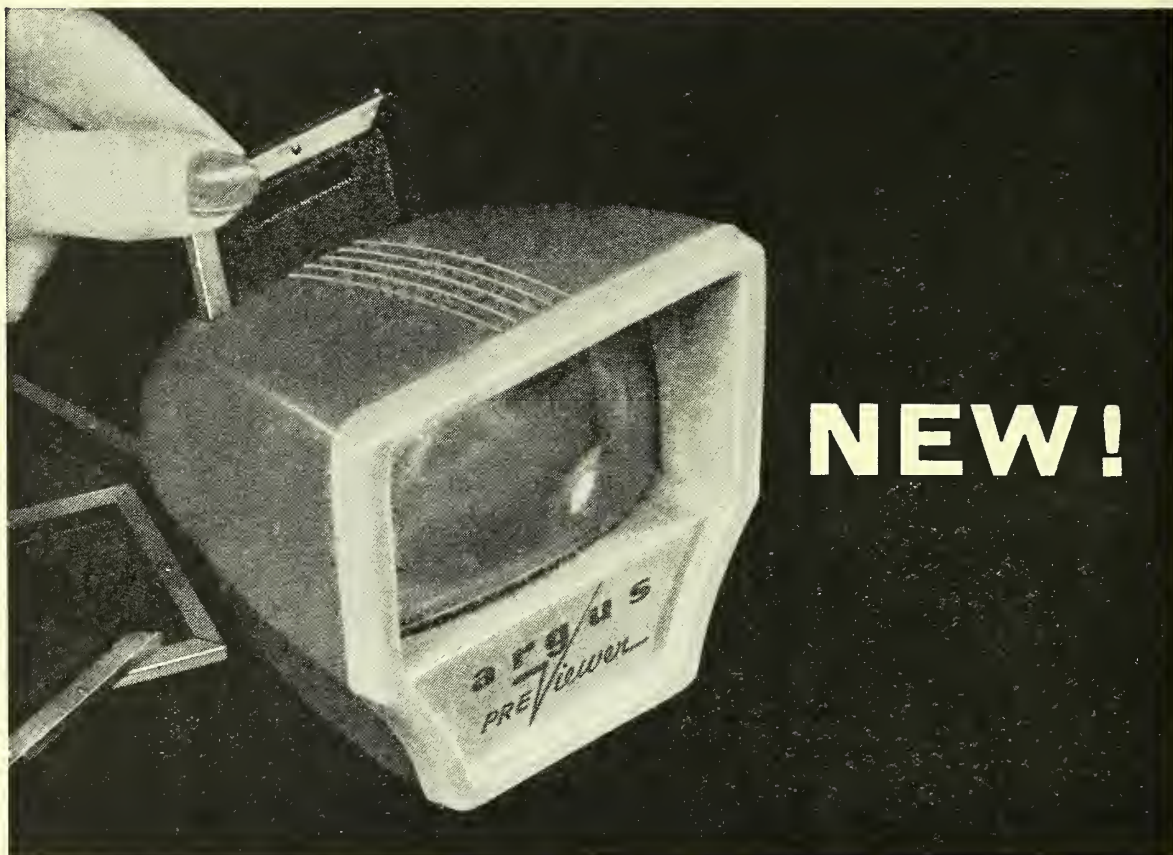
Thanks to your support the demand for Band-Aid Dressings GROWS every day.

SECOND: Continuous advertising throughout the year

Week after week, over forty million people read about Band-Aid Dressings in *Radio Times*, *Woman* and *Woman's Own*.

THIRD: Wonderful sales aids

The J & J representative will supply you with sales-making display material to help your counter trade.



This is the *genuine* Argus Previewer (registered trade mark)

HANIMEX LTD. present the TV style **argus previewer**

Forerunner of a complete new range of 35 mm. colour equipment. As more and more people with inexpensive cameras turn to colour, the Argus Previewer's going to be an increasingly good selling line (£3.15s.0d. retail, complete with batteries).

LARGE COLOUR SPACES!

HANIMEX LTD. are launching a concentrated advertising drive which will run throughout the summer and will ensure that their stockists get the backing they deserve.

Large colour spaces in the photographic press, together with *Illustrated* and *Everybody's* (read

by 9½ million people) and *Radio Times* (read by 23 million people) will bring you many enquiries —so don't be caught without a stock.

EYE-CATCHING SALES AIDS

Order now from HANIMEX LTD., 345 City Road, London E.C.1. Window-stickers and smart counter cards are available, too. Remember, point-of-sale material turns the window-gazer into a purchaser. Details from

HANIMEX (U.K.) LTD.

345 City Road, London E.C.1 Tel: TERminus 7424/7
(also at Sydney, Auckland, New York, Chicago)

Argus Pre-Viewer Distribution

HANIMEX (U.K.) LIMITED wish to clarify the position regarding distribution of the ARGUS Pre-viewer.

The ARGUS Pre-viewer is only available direct from them and has, to date, never been offered through any wholesale distribution channels.

From many dealers' letters, it appears that orders to Wholesalers for ARGUS Pre-viewers are being acknowledged with information that the ARGUS Pre-viewer is not available immediately, and that supplies will not come to hand until late September. This is quite inaccurate. Hanimex have stocks available for immediate delivery and can offer a by-return service to all Chemists.

The Hanimex Company would also like to clarify any misunderstanding which may have arisen through a similarity to any other viewer and to state that they have no connection whatsoever with any other products of similar appearance.

The ARGUS Pre-viewer is manufactured by Hanimex Pty. Limited, Australia, under licence from Argus Cameras Inc. a division of Sylvania Electric Products Inc. of America.



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night and day relief from allergic symptoms

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'Histryl' and 'Spansule'* are trade marks *Brit. Pat. No. 742007

SH:TA147



The Perfect Pack for Display.

Available in sizes :—

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and 16 oz.

Caps: Black, White or Red Plastic,
White Enamelled Metal.



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GLASS BOTTLE MANUFACTURERS
ROTHERHAM Established 1751 YORKS

BC88



THE CHEMIST AND DRUGGIST

ESTABLISHED 1859

The weekly newspaper for pharmacy and
all sections of the drug, pharmaceutical and
fine chemical, cosmetic, and allied industries

*Official organ of the Pharmaceutical Society of Ireland
and the Pharmaceutical Society of Northern Ireland*

Volume 168

August 31, 1957

No. 4045

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ANNUAL SUBSCRIPTION

which includes The Chemist and Druggist Diary and
Year Book. £2. Single copies one shilling each.

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to Sept 30th

ONLY

parcels
containing 36
bottles of Fenox
Nasal Drops for the
price of 33

i.e. 55/- Net



3 bottles FREE

...in each parcel—and no limit to
the number of parcels you may order



S.304

Available from your usual Wholesaler or from the Wholesale Division of
BOOTS PURE DRUG CO. LTD., STATION STREET, NOTTINGHAM. TEL. NOTTINGHAM 45501
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The CHEMIST AND DRUGGIST

Volume 168

AUGUST 31, 1957

No. 4045

Back Pay for Trusses AGREEMENT REACHED

AGREEMENT has been reached between the Ministry of Health and the Central N.H.S. (Chemist Contractors) Committee on the payment of arrears of dispensing fees for trusses supplied between March 1956 and April 1957.

Higher fees for truss-fitting were announced recently (see *C. & D.*, June 1, p. 581). Payment is being made at the rate of 1s. 9'43d. for each prescription for a truss. The back payment is being included with the normal payment for prescriptions dispensed during July 1957.

National Formulary

OPERATIVE DATE: NOVEMBER 1

THE British National Formulary, 1957, has been accepted by the Minister of Health for National Health Service purposes, as from November 1. The date has been chosen to coincide with the date of operation of the Supplement to the British Pharmaceutical Codex, 1954. Copies of the Formulary are being sent to chemist contractors. In a notice that is being issued by the appropriate Executive Council with each copy, attention is drawn to the new formula for codeine linctus containing a higher proportion of codeine phosphate (gr. 1/5 in min. 60). That formula is also to be supplied against prescriptions for strong codeine linctus of the previous formulary, which is not included in the British National Formulary. It is also pointed out that several commonly prescribed mixtures are also slightly modified, e.g., in five mixtures the vehicle is changed from water to chloroform water. A list of preparations with changed composition is given on p. 10 of the formulary. Where it is essential for tablets, capsules, etc., to be dispensed in airtight containers, or in containers which prevent the access of moisture, that is stated in the monograph. Eight tablets, most of which are frequently prescribed (e.g., soluble aspirin tablets), one capsule and one solution-tablet are affected by the new requirement. The British National Formulary, 1957, supplants all preceding National Formularies and if a doctor wishes to prescribe a preparation from an old Formulary he should write out the full formula.

Research Grants

SOCIETY'S HELP FOR SIX STUDENTS

THE Council of the Pharmaceutical Society has made educational grants of £300 each for 1957-58 to the following:—Mr. Michael John Davey (to

undertake, at Chelsea Polytechnic, research into hormonal influence on the reabsorption of salt and water by the kidney.); Mr. Stuart Anthony Hill (to undertake, in the school of pharmacy, Brighton Technical College, an investigation into the chemistry of the pyrido thiazoles and similar polynuclear compounds); Mr. George Wilfred Lynn James (to undertake, in the department of pharmacology, Welsh National School of Medicine, research into structure activity relationships in a series of dimethylhalogenophenylethylamines with anti-sympathetic and anti-parasympathetic properties); Mr. Brian John Meakin (to undertake, at Leicester College of Technology, an investigation into the synthesis of potential anti-metabolites of phenylalanine); Mr. John Malcolm Pickett (to undertake, in the school of pharmacy, Brighton Technical College, research into the mechanism of bacteriostasis); Mr. Robert Frank White (to undertake, at the School of Pharmacy, London University, research into the rheology of emulsions). In addition, the Council has made a grant of £500 to Dundee Technical College, subject to the balance of the cost of apparatus, accessories and

books required for research in the college being made from other sources, and a grant of £200 to the department of physiology, St. Andrews University, towards the cost of employing a pharmacist who has specialised in pharmacology, as a member of the team undertaking research into extracts of the cercbellum.

A Birmingham Service

CO-OPERATION ON SHEFFIELD MODEL

THE pharmacy opened in the central shopping area of Birmingham by Associated Chemists (Birmingham), Ltd., on August 26 (see *C. & D.*, August 17, p. 168), is providing a late-night dispensing service on a scale beyond the scope of individual pharmacists in their own shops. Formed on the initiative of the Birmingham Branch of the National Pharmaceutical Union, the new venture is based on the experience of Sheffield in a similar scheme in operation since 1952. The new pharmacy is open from 9 a.m. to 10.30 p.m. (even until midnight if there proves to be a demand for such service).

Price Adjusted

A PROPRIETARY NOW PRESCRIBABLE

UNDER the recent agreement between the Ministry of Health and the Association of British Pharmaceutical Industry (*C. & D.*, April 13, p. 391) the prices of Brovon inhalant have been adjusted by the manufacturers, Moore Medicinal Products, Ltd., Aberdeen. In consequence, doctors are no longer be-



GOLD WATCH FOR LONG-SERVICE EMPLOYEE: At a dinner given by The Crookes Laboratories, Ltd., Park Royal, London, N.W.10, to a large gathering of their sales representatives from the United Kingdom and overseas, Mr. W. E. Linford, centre (former manager of the company's India branch), received a gold watch to mark the end of a quarter of a century's service (see *C. & D.*, August 10, p. 147). He is seen here being congratulated by, right, Mr. E. H. Seymour (export manager) and Mrs. Seymour and, left, Mr. S. C. Honeyball (buyer), and Mrs. Honeyball.

ing asked not to prescribe the inhalant for their National Health Service patients.

Trade Fair in Finland

A BRITISH ENTERPRISE AT HELSINKI

A BRITISH Trade Fair and Exhibition is being held in Helsinki, Finland, September 6-22. The sponsors are the Federation of British Industries, London Chamber of Commerce, and the Finnish-British Trade Association. Over 500 British manufacturers are taking part. Among them are:—Albright & Wilson (Mfg.), Ltd.; Alginate Industries, Ltd.; B.D.H. Laboratory Chemicals Group; Bowmans Chemicals, Ltd.; British Chrome and Chemicals, Ltd.; British Industrial Solvents (The Distillers Co., Ltd.); British Oxygen Gases, Ltd.; Brotherton & Co., Ltd.; W. J. Bush & Co., Ltd.; Croda, Ltd.; Ever Ready Razor Products, Ltd.; Hanovia Lamps Division of Engelhard Industries, Ltd.; Ilford, Ltd.; Imperial Chemical Industries, Ltd.; James A. Jobling & Co., Ltd.; Kemball, Bishop & Co., Ltd.; Kodak, Ltd.; Manesty Machines, Ltd.; May & Baker, Ltd.; Pilkington Bros., Ltd.; Rank Precision Industries, Ltd.; Refajax, Ltd.; Helena Rubinstein, Ltd.; Ultrasonics, Ltd. The President of Finland will be the principal guest at a dinner arranged by the F.B.I. for the evening of the opening day. Speakers at the dinner will include the British Ambassador, Sir Hugh Beaver (president of the F.B.I.) and Mr. Derek Walker-Smith (Minister of State, Board of Trade).

Experiments on Animals

HOME OFFICE FIGURES FOR 1956

OVER a million experiments involving living animals were performed in 1956 in the course of preparing and testing substances intended for use in the treatment of disease in man or in animals, including 986,775 experiments for standardisation of sera, vaccine or drugs. Those figures are given in the annual return of experiments on living animals published recently (H.M. Stationery Office, price sixpence). Of 5,401 persons holding licences 1,467 performed no experiments. There was a total of 2,790,940 experiments during the year. Experiments performed under anaesthesia totalled 32,643. The number of experiments performed without anaesthesia was 2,428,445, approximately 87 per cent. of all those made during the year. Those experiments were mostly inoculations, external applications, modifications of the animal's diet or environment, or the administration of a drug or toxin, followed in each case by observation of the results. In the course of cancer investigations, the returns show that of 192,074 experiments, 39,642 were performed under anaesthesia and 152,432 without anaesthesia. The great majority of those experiments were performed upon rodents, and those performed without anaesthesia, involved mostly external applications, injections or "feeding" experiments designed to test for any possible cancer-producing factors in foods or other substances in common domestic or commercial use.

Imperial Preference

TECHNICAL CHANGES IN REGULATIONS

THE Board of Trade published on August 19 the Import Duties (Imperial Preference) Regulations, 1957, amending and amalgamating the current Regulations which lay down the conditions for the grant of Imperial Preference. The amendment of the Regulations is mainly a technical operation and is necessary in order to implement the change, under Section 5 and the Second Schedule of the Finance Act, 1957, in the method of ascertaining preference qualification in the case of composite goods containing dutiable ingredients on which preference is claimed. The effect on Customs procedure of the amended Regulations is explained in a revised edition of Customs Notice No. 27A dated August 1957, copies of which will shortly be available at any office of a Collector of Customs and Excise. The Regulations will come into force on September 1.

National Insurance

NEW RATES OF CONTRIBUTIONS

NEW combined weekly rates of contributions for National Insurance and National Health Service take effect on September 2. The contributions are: Class 1 (employed persons): Men: Age eighteen or over, 13s. 7d. (6s. 2d. paid by employer); under eighteen, 7s. 11d. (3s. 8d.); women: eighteen or over, 11s. 1d. (5s. 1d.); under eighteen, 6s. 7d. (3s.). Class 2 (self-employed persons): Men: Eighteen or over, 9s. 3d.; under eighteen, 5s. 4d.; women: eighteen or over, 7s. 10d.; under eighteen, 4s. 9d. A leaflet, N.I.94, explaining the new rates, is available from local offices of the Ministry of Pensions and National Insurance, and from post offices.

Scientific Films

INTERNATIONAL CONGRESS IN HOLLAND

THE eleventh congress of the International Scientific Film Association, Amsterdam, September 21-27, is being attended by a party of twenty British delegates. Eleven British films have been submitted, including: "Energy for Europe" (Esso); "Work Study and its Application to Team Work" (British Productivity Council); "Atomic Achievement" (Central Office of Information); "William Harvey and the Circulation of the Blood" (G.B. Film Library); "Subperiosteal Dental Implants" (Pharmaceutical Manufacturing Co.). Some of the films have been recommended for showing at the public film shows during the Congress.

Praise from Press

"GALLANT" PHARMACEUTICAL SOCIETY

THE Pharmaceutical Society of Great Britain is described as "gallant" and pharmacists are praised for their part in the voluntary ban which has been put on the sale of tranquilliser drugs, in an article which appears in *The People* dated August 25. In contrast, the subcommittee of the Home Office Poisons Board which was set up in 1956 when

the Pharmaceutical Society drew attention to the danger of the indiscriminate use of tranquillisers, is criticised for its delay in coming to a decision on the matter.

IRISH NEWS

THE NORTH

Associates' Wage Claim

DECISION TO SEEK INCREASES

A CLAIM for an increase in most categories of wages under the Ulster Chemists' Association scale is being submitted to the executive committee of the U.C.A. by the Associates' Section. That was decided at a special meeting of the committee of the Section held in Belfast, on August 19, presided over by Mrs. C. O'Rourke (chairman). THE CHAIRMAN asked Mr. G. E. McIlhagger to present wedding gifts to Mr. J. E. Morley (past-chairman of the Section) and to Mr. S. Wright. MR. MCILHAGGER spoke of the Committee's regret at the impending resignation of Mrs. O'Rourke, because her husband was starting in business on his own account. They wished Mr. and Mrs. O'Rourke every success in their new venture. His sentiments were endorsed by Mr. J. KERR. MESSRS. MORLEY and WRIGHT in response also expressed regret at Mrs. O'Rourke's resignation. MRS. O'ROURKE said that she had enjoyed her period of office, and her service on the Committee, and thanked all the members for their "splendid support."

Animal Feedingstuffs

NEW MILL FOR BELFAST

A NUMBER of animal feedingstuffs manufacturers, at present shipping their products from England or Scotland to Northern Ireland, have agreed to co-operate in erecting a mill in Belfast. The companies concerned are the British Oil and Cake Mills, Ltd., Crosfields & Calthrop, Ltd., Lever's Cattle Foods, Ltd., and R. Silcock & Sons, Ltd. A site has been acquired in York Road, Belfast. A company is being formed to own and run the mill on behalf of the four participating firms, which will retain their respective identities in developing the trade in their own products. The British Oil and Cake Mills, Ltd., 2 Kingscote Street, London, E.C.4, have been deputed by the parties to undertake the acquisition of the site and the erection of the manufacturing plant on their behalf.

Council Election

CLOSING DATE FOR NOMINATIONS

NOMINATIONS for vacancies on the Council of the Pharmaceutical Society of Northern Ireland must reach the secretary of the Society, 73 University Street, Belfast, by noon on September 16. Due to retire are six representatives of pharmaceutical chemists, Messrs. C. A. Quinn (president of the Society), W. H. Boyd, W. P. Ewart, H. W. Gamble, J. McGregor and P. R. W. Shinner, and the representative of the registered druggists, Mr. R. M. Watson. All seven are offering themselves for re-election.

SCOTTISH NEWS

Doctors' Stock Orders

REMINDER ON USE OF FORMS

EXECUTIVE Councils in Scotland are reminding doctors of the purposes for which stocks of drugs may be ordered on Form EC10A. The doctor may order on those forms (a) such drugs and appliances as are required for immediate administration or application or for use before a supply can be obtained from a chemist; and (b) any other drug which is administered by the doctor in person. The quantities ordered should be only those necessary for those purposes. Appliances must be selected from the list of prescribed appliances which is set out in the Third Schedule to the National Health Service (General Medical and Pharmaceutical Services) (Scotland) Regulations, 1955. Forms EC10A must not be used for any purpose other than those mentioned above, nor for chemical reagents or equipment such as hypodermic syringes and needles, finger cots, etc., required for the doctor's own use.

NEWS IN BRIEF

SALES of Liverpool Co-operative Chemists, Ltd., in the quarter ended June 8 totalled £13,129.

THE United Kingdom had a net deficit with the European Payments Union for the month of July of £18,215,714.

A WEST Sussex chemist contractor has been warned by his local pharmaceutical service committee after he supplied on a test prescription a crêpe bandage in place of a cotton crêpe bandage ordered.

PHARMACISTS now residing outside Scotland who wish to be associated with the retail presentation to Dr. D. McCall (see *C. & D.*, August 24, p. 190) are asked to send their contributions, made payable to the "Dr. McCall Presentation Fund" to the joint honorary treasurers, 36 York Place, Edinburgh, 1.

DISTRIBUTION payments made by the Sugar Board on certain classes of imported composite sugar products will, from September 1, be calculated by reference to a schedule of rates for different groups of products prescribed in a new Order (S.I., 1957, No. 1496), instead of by reference to the sugar and/or molasses content of individual imports.

SPORT

GOLF.—IRISH CHEMISTS' GOLFING SOCIETY, at Elm Park golf club, Dublin, recently. Prizes presented by Boileau & Boyd, Ltd. Mr. Cunningham (a director, Boileau & Boyd, Ltd.), presented the prizes to the winners at a supper held in the evening. *Eighteen holes strokes*, 1, D. Mulvey (8), 71; 2, S. J. Savage (8), 71; *Eighteen holes bogey*, 1, J. J. Power (11), all square; 2, D. Arnold (11), 2 down; *best first nine*, K. Banks, 34; *best second nine*, J. Foley, 34½. The next outing is to Skerries on September 11.

LIVERPOOL CHEMISTS' GOLFING SOCIETY, at Hillside golf club on August 21. *E. M. Murphy prize*, V. Richards (8), 75; *B.D.H. prize*, N. Vanderbilt (12), 76; *Paines & Byrne prizes*, J. J. Carrol (3), 77, and Dr. B. Joseph (12), 78; *I.C.I. prize*, S. C. Bourne (18), 79.

TOPICAL REFLECTIONS

By Xrayser

A Live Topic

Those who attend meetings, and those who study the pharmaceutical Press, are alive to the crisis we have reached in education, though there are still too many whose opinion is confined to an expression of relief that they are "finished with all that." In a very fair and dispassionate leading article, you pose a number of questions to which answers must be sought. Whether the answers will be forthcoming at the Bristol meeting is another matter, for the Council appears at times to be speaking with two voices, or acting a double rôle. That there is a bias towards the degree is evident from the public statements of several members of the Council of the Pharmaceutical Society. That that intention is not new is evident from the Council's statement on education issued in July, in which the preamble (*C. & D.*, July 6, 1957, p. 5) included a quotation from the report of the Committee of Inquiry, set up in 1937, to the effect that "admission to the register would be either through the examination conducted by the Society or through a university degree . . . but admission through a degree would be the rule rather than the exception." Despite the official statement and unofficial pronouncements, an educational policy subcommittee was set up nearly three years ago to reformulate the policy for pharmaceutical education, and it was as a result of its findings that the statement referred to was issued in July of this year. It concerns itself with the Society's own diploma as though the diploma was still to be the rule rather than the exception, for it recognises that "the majority of pharmaceutical students are still trained in technical colleges, and, so far as can be seen at present, will continue to be so." I have been unable to make up my mind whether that is a statement of fact or an expression of regret.

Further Questions

No one will deny that, while pharmaceutical general practice is still carried out in the same field as for generations past, great changes in the form of dispensing done have taken place. The retail practising pharmacist is helpless in the matter. He, fulfilling his traditional rôle, dispenses what the doctor prescribes. The introduction of biochemistry, and the discoveries in new wide fields, have led to an ever-increasing use of products that can be manufactured only in the laboratory. Nothing seems likely to reverse the trend, and indeed it can only be supposed that it will intensify. That being so, the question may be asked whether we want to produce a pharmacist who will merely distribute the products of another class of professional worker, or whether we would still prefer to have some hand in the research and manufacture of modern medicines. It is still the practice for pharmacists in France, as recently reported in *THE CHEMIST AND DRUGGIST*, to carry out analytical work, and with foresight that might have been the position in this country. Although one admits that the majority of pharmacists in Britain practise "retail" pharmacy, would it be wise to shape the diploma so that the specialised pharmaceutical work in manufacturing houses would pass completely into the hands of people other than pharmacists? If only in view of the origin and history of many of those firms, that would be a pity. I feel the diploma standard must be maintained, and the diploma itself retained as the recognised qualification of the Pharmaceutical Society which, after all, appears to have obligations under the Pharmacy Acts.

Cudbear

The historic account of cudbear (p. 204 *et seq.*) is an outstanding example of careful and thorough research, adding to our knowledge and placing on permanent record the story of a substance that has vanished from the contemporary scene. Dr. Hardie's reference to Mackintosh and his patent for waterproofing recalls that the original discovery has frequently been ascribed to James Syme, the famous Edinburgh surgeon, father-in-law of the still more renowned Joseph Lister. I wonder if Dr. Hardie's researches threw any light on that oft-repeated and, according to Dr. John Brown, true story?

FLAVONOID TREATMENT DISCOUNTED

"Of little value in therapeutics"

FLAVONOIDS, which have been in vogue in recent years for the treatment of such diverse clinical entities as capillary fragility, hypertension, diabetes, rheumatic fever, arthritis, pregnancy and the common cold are of little or no value in the treatment of disease, states Dr. W. M. Pearson in a report to the Councils on Foods and Nutrition and Drugs of the American Medical Association. The report, published in the *Journal of the American Medical Association*, dated August 10, points out that the high hopes once held for the flavonoids as important metabolites

have not materialised. They are not essential nutrients.

Original reports claimed that flavonoids were capable of decreasing capillary fragility, but present knowledge showed that if they affected fragility they did so because they possessed certain pharmacological properties and not because they were involved metabolically or structurally in maintaining the integrity of the vessel wall. Favourable results reported in the use of flavonoids in the treatment of the common cold are attributed to the fact that a proper control was not used. On the basis of

evidence now on hand, the flavonoids are stated to have no significant affect, palliative or otherwise, on the course of the common cold. Evidence concerning the absorption and metabolism of the flavonoids is incomplete and contradictory.

Dr. Pearson says that one function of the flavonoids which seems to be sufficiently documented and clear to warrant recognition is that certain of the isoflavones present in clover, alfalfa hay, and soya bean meal are oestrogenic, although the compounds are of low potency.

EXAMINATION RESULTS

THE following candidates satisfied the examiners in the Pharmaceutical Chemist Qualifying examination held by the Pharmaceutical Society in Scotland in July (†=certificate withheld pending evidence of practical training or age):—

- | | | | |
|-------------------------------------|--------------------------------------|---|--|
| †Affleck, J. S., Huddersfield | †Fraser, J. J. M., Inverness | Longster, R., Leeds | Riddell, J. M., Welling |
| Allen, N., Derby | †Fraser, Mairi J. F., Glasgow | †Lowson, Marjorie,
Newcastle-on-Tyne | Roberts, G., Llanrwst |
| Ames, P., Clitheroe | †Freestone, Brenda A.,
Southgate | †McAleer, A., Glasgow | Roberts, T. O., Holloway |
| †Ash, Mary A., Nottingham | Gardner, A. W.,
Burton-on-Trent | †McConnell, W. S., Hurlford | †Rosenberg, L. J., Southend |
| Ashmore, P., Sheffield | †Garner, Marion C. M.,
Harrow | McDermott, M. E.,
Birmingham | Salt, D. A., Walsall |
| Atkinson, Joyce M., Hessele | †Glasman, C. M.,
Stoke Newington | McElroy, B., Oldham | †Sangster, Jane A. C., Glasgow |
| Auerbach, N., Manchester | Gledhill, P. G., Banbury | McEvoy, D. N., Liverpool | Santer, N., Liverpool |
| †Baker, F. J., Wembley | †Gordon, Margaret A., Skene | McFeat, Florence E. G.,
Giffnock | Scaife, R., Harrogate |
| †Banks, Margaret C. B.,
Bristol | Graham, D. G., Aberdeen | McLaren, R., Edinburgh | Scobie, D. J., Exeter |
| Barclay, Catherine W.,
Lochgelly | †Greenwood, Carol M.,
Baildon | †McManus, Veronica M.,
Broxburn | †Scott, Marion,
Chester-le-Street |
| Bateson, Mary M.,
Manchester | †Griffin, B., Sunderland | McMoutrey, P., Sunderland | Searle, R. A. H., Exeter |
| Bekele, S., Burnemouth | Griffiths, C., Middlesbrough | †MacMurray, D., Loanhead | †Sevenoaks, C., North Shields |
| Binks, P. J., Wakefield | Hale, Barbara L., St. Annes | McPherson, R. S., Tarves | Shaw, N. M., Edinburgh |
| Bocking, Annemarie, Pinner | Hall, Patricia A., Doncaster | †Mair, D. C., Glasgow | Sinclair, I. R. L., Edinburgh |
| †Bradford, G., Muirkirk | †Hall, R. C. A., Westcliffe | Mallinder, G. F., Blackpool | †Singer, Elizabeth M.,
Fordingham |
| Bran, M. J., Highworth | Hardwick, J. E., Billingham | Mansell, J. D., Staines | †Singer, J. A., Potchefstroom |
| Brewis, J. H., Hebburn | Hardy, Jean, West Hartlepool | Margerrison, J. M.,
Oakengates | Sjoholm, J. V., Cleethorpes |
| †Briggs, D. W., Leeds | †Harper, J. J. A., Virkie | Marley, T., Sunderland | †Skinner, F. S., Edinburgh |
| Brown, I. M., Kelso | †Harris, J. N., Millom | Marriot, Irene R. P., Hayes | Slawson, R. W., Brentwood |
| †Brown, J. T., Hull | Hart, A. R., Exeter | †Martin, J. P., Enfield | †Smith, Doreen R., Clarkston |
| Bullock, P. R., Dudley | Hepburn, D. J., Morpeth | Melling, G. C., Norwich | †Smith, J. F., Sunderland |
| Cameron, L. C., Edinburgh | Herbert, S. R., Lichfield | Midgley, J. B., Bradford | Smith, J. M., Birmingham |
| Carter, W. K., Warrington | Hesford, Shirley,
Wolverhampton | †Mielenik, Olga, Leicester | Southwood, M. J.,
Wolverhampton |
| †Chaston, Valerie C.,
Sunderland | †Hiatt, J., Coventry | Milburn, J. B., Spennymoor | †Spencer, P. F.,
North Finchley |
| Churning, S., Leeds | †Hill, G., Nottingham | Miller, G. F., Stoke-on-Trent | †Sternfeld, Susanna,
Finsbury Park |
| Clarke, G., Derby | Hawkin, J. C., Leeds | Mills, J. P., Rochdale | Sullivan, Maureen,
Manchester |
| Clarkson, Patricia J., Nelson | Hitchings, Ann M., Swansea | †Moon, M. J., Bristol | †Swan, Edna, Ashington |
| Clayton, Margaret, Nelson | †Hodgetts, M. J.,
St. Johns Wood | Moor, K. I., Scarborough | Tarbit, J. D.,
Berwick-on-Tweed |
| Coleman, Margaret, South
Norwood | Hollows, D., Todmorden | †Morgan, Patricia, Bradford | †Taylor, Mary R., Aberdeen |
| †Copping, Mary V., Halifax | †Holt, Patricia M., Burnley | Morrell, P. S., Leeds | †Thirlwell, Patricia A.,
Willington |
| †Cowie, Elizabeth, Peterculter | Hyde, J., Burnham-on-Sea | Morris, A. G., Portsoy | Thompson, C. B.,
Chapel-en-le-Frith |
| †Cox, Ann, Putney | †Jessop, Elizabeth A., Torquay | Morris, I. B., Liverpool | †Tilstone, W. P., Congleton |
| Cubey, F. R., Brigg | †Johnston, N. S., Aberdeen | †Morrison, Joan I. R.,
Edinburgh | †Tope, Evelyn M., Plymouth |
| Cumbus, S., Lancaster | †Jones, Glenys E. L.,
Chessington | Myles, R. S., Dundee | Topping, D. G., St. Helens |
| †Davies, Veronica, Edinburgh | Jones, J. E., Clapton | Nethercott, A. J.,
New Southgate | †Trotman, W. P., Bristol |
| †Dent, G. S., Newbiggin | Jones, Shirley M. B.,
Newtown | Nicholas, H. G., Letterston | Turnbull, K. L.,
Hetton-le-Hole |
| Dobson, P., Leeds | Kemp, R. J., Chatham | Nicholson, P. S., Sheffield | Vernon, Margaret E., Hessele |
| †Dowell, Patricia A. V.,
Baldock | Kerner, B. P., Golders Green | Niven, G. S., Huntly | Webb, M. H.,
South Kensington |
| Dowland, R., Gillingham | †Khatri, K. K., West Norwood | †Nixon, Pearl E., Sunderland | †Webster, A. R., Fife |
| Downs, Joyce P., Plymouth | King, J., Glasgow | †Noble, A., Rosehearty | Whitehouse, Helen E., Tipton |
| Draycott, Shirley, Derby | Lambert, Marion, Burnley | Noon, Mary M., Blackpool | †Whitfield, G.,
Houghton-le-Spring |
| †Duncan, G. D., Whitley Bay | †Leadbetter, L. R., Tamworth | Norris, G., Portsmouth | Wilkinson, B. A., Harrogate |
| Duns, Joan
Newcastle-on-Tyne | Leslie, J., Orkney | Nutter, Dorothy, Nelson | Williams, D. I., Ruislip |
| Durning, F., Glasgow | Levenson, S. L., Hackney | Oliver, J. T., Enfield | Williams, M. L., Wrexham |
| Elgie, Sheila L., Monkseaton | †Liversedge, Audrey E.,
Dewsbury | Pickles, Constance S.,
Hebden Bridge | Wilsdon, D. G., Southport |
| England, J. D., Wigan | †Long, Elsie M., Sunderland | Postle, C., Stockton | Woods, Adela W.,
Nottingham |
| †Ezekiel, Florence, Hendon | | Quarmby, J. C., Leeds | †Wooff, H., Westminster |
| Ferguson, J., Glasgow | | Radford, B. M.,
Stoke-on-Trent | Wragg, C. M., Sheffield |
| Field, M. A., Frodsham | | Rayner, D. K., Bradford | |
| | | †Read, Alison J.,
Newcastle-on-Tyne | |

INTERNATIONAL NAMES

New proposals by World Health Organisation

THE World Health Organisation has issued the following list of names which are under consideration as proposed international non-proprietary names. Comments on, or formal objections to,

the proposed names may be forwarded to the pharmaceutical section of the World Health Organisation within a period of four months from August 1.

Proposed name	Chemical name or description
acetylmetadadol	6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
alphacetylmetadadol	α -6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
alphamethadol	α -6-dimethylamino-4,4-diphenyl-3-heptanol
anileridine	1-[2- <i>p</i> -aminophenyl]-ethyl]-4-phenylpiperidine-4-carboxylic acid ethyl ester
betacetylmetadadol	β -6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
betamethadol	β -6-dimethylamino-4,4-diphenyl-3-heptanol
betaprodine	β -1,3-dimethyl-4-phenyl-4-propionoxypiperidine
desomorphine	dihydrodesoxymorphine
dinepheptanol	6-dimethylamino-4,4-diphenyl-3-heptanol
dioxaphetyl butyrate	4-morpholino-2,2-diphenyl ethyl butyrate
dipipanone	4,4-diphenyl-6-piperidino-3-heptanone
ethoheptazine	1-methyl-4-carbethoxy-4-phenylhexamethyleineimine
hydroxypethidine	1-methyl-4-(3-hydroxyphenyl)-piperidine-4-carboxylic acid ethyl ester
metethoheptazine	1,3-dimethyl-4-carbethoxy-4-phenylhexamethyleineimine
metheptazine	1,2-dimethyl-4-carbomethoxy-4-phenylhexamethyleineimine
methyl-desomorphine	6-methyl- Δ^6 -desoxymorphine
methyl-dihydromorphine	6-methyldihydromorphine
myrophine	myristyl ester of benzylmorphine
normethadone	4,4-diphenyl-6-dimethylamino-3-hexanone
oxphenieridine	1-(2-phenyl-2-hydroxyethyl)-4-carbethoxy-4-phenylpiperidine
oxymorphone	dihydrohydroxymorphinone
phenieridine	1-(2-phenylethyl)-4-carbethoxy-4-phenylpiperidine
phenomorphan	3-hydroxy- <i>N</i> -phenethylmorphinan
proheptazine	1,3-dimethyl-4-phenyl-4-propionoxyhexamethyleineimine
properidine	1-methyl-4-phenylpiperidine-4-carboxylic acid, isopropyl ester
propoxyphene	4-dimethylamino-1,2-diphenyl-3-methyl-2-propionoxybutane
thebacon	acetyldihydrocodeinone

MANUFACTURERS' ACTIVITIES

Name the Dog.—The results have been announced of a nation-wide consumer competition organised by Petfoods, Ltd., Melton Mowbray, for their product Meet. The public were asked to name the dog depicted on the Meet label and the winning entries were chosen for aptness and originality by Mr. Peter Haigh, Mr. J. Wynn-Wil-

liams (managing director, Masius & Fergusson, Ltd., advertising agents) and Mr. Neil Faulkner (advertising manager, Petfoods, Ltd.).



Mr. Neil Faulkner, Mr. Peter Haigh, well-known television performer, and Mr. J. Wynn-Williams at the moment of selecting the winning entry in a competition organised by Petfoods, Ltd.

liams (managing director, Masius & Fergusson, Ltd., advertising agents) and Mr. Neil Faulkner (advertising manager, Petfoods, Ltd.). Commenting on the record number of entries, Mr. Neil Faulkner said that the success of the competition had been the result of the enthusiastic support and co-operation from retailers. As a result of the competition customers will meet the Meet dog more familiarly as Shakespaw, the

winning name submitted by a Surrey schoolteacher.

The Aid of the Expert.—Ucal, Ltd., Cheltenham, Glos., have answered the SOS of a Casablanca, Morocco, firm which is experiencing difficulty with a new lozenge-making plant. A short time ago a Birmingham engineering company, John Hounsell (Engineers), Ltd., contacted Mr. J. L. Goulder (managing director, Ucal, Ltd.) and told him they were supplying £500,000-worth of machinery of a type similar to Ucal's lozenge plant to the Casablanca firm of Carlos A. Benaim. The engineering firm asked Mr. Goulder if he would give Mr. Benaim instruction in the operation of the plant and the manufacture of lozenges. As a result of Mr. Goulder's agreement to that request, Mr. Benaim spent fourteen days at Ucal, Ltd., receiving instruction from Mr. W. Screen (manager of the lozenge department). On August 15, Mr. Benaim cabled Ucal, Ltd., to say that he was experiencing difficulty in operating the plant and offered to pay all Mr. Screen's expenses if he would fly out to give assistance. Mr. Goulder immediately agreed to release Mr. Screen.

Fight Against Midges.—Early this summer foresters employed by the Derwent Valley Water Board were pestered and bitten by a plague of midges—so severely that often they had to stop work. After a careful study of the problem and a thorough inspection of the conditions, however, scientists from the

chemicals division of Newton, Chambers & Co., Ltd., Thorncliffe, nr. Sheffield, devised a means of minimising the trouble. Each morning a large powder blower on loan to the Water Board dusts the working area with the company's Zaldecide insecticide.

CONFERENCE TIMETABLE

THE following is the programme of events arranged for the British Pharmaceutical conference meeting in Bristol, September 2-6. Times of morning events are given in light, noon and afternoon events in heavy, types:—

MONDAY

- 10.30: At the council house. Morning coffee.
 11.15: At the council house. Opening session and address by the Conference chairman.
 1.00: Luncheon.
 2.30: At the University. Science session.
 Ladies' excursions.
 8.00: At the City museum and art gallery and the University. Civic and academic reception followed by a dance at the Berkeley hotel.

TUESDAY

- 9.30: At the University. Science session.
 At the University. Professional session.
 Ladies' excursions.
 1.00: Luncheon.
 2.30: At the University. Science session.
 Ladies' excursions.
 7.00 for 7.30: At the Victoria Rooms. Conference banquet.

WEDNESDAY

- 9.30: At the University. Science session.
 12 noon: Conference excursion to Wells, Cheddar and the Mendip Hills. Luncheon and afternoon tea en route.
 9.00: At Royal hotel. National Association of Women Pharmacists. Informal meeting.

THURSDAY

- 9.30: At the University. Symposium session.
 Ladies' excursions.
 1.00: Luncheon.
 2.30: Sports.
 Ladies' excursion.
 7.00: At Colston Hall. Concert.

FRIDAY

- 9.30: At the University. Science session.
 At the University. Professional session.
 Ladies' excursions.
 1.00: Luncheon.
 2.30: At the University. Science session.
 3.45: At the University. Buffet tea.
 4.30: At the Great Hall of the University. Closing session.
 7.45 for 8.15: At the Berkeley hotel. Conference ball.

LEGAL REPORTS

Pharmacy Act Fines

FINES totalling £27 were imposed at Bolton on August 23 on Winston Crumblehulme, M.P.S., Silverdale, Stapleton Avenue, Bolton, who pleaded guilty to selling poison without supervision and selling poison in a non-labelled bottle. Solicitor for the Pharmaceutical Society, which prosecuted, said that an inspector of the Society bought from one of Mr. Crumblehulme's six shops a bottle of Metatone. "The inspector was served by an unqualified assistant." Defending solicitor pleaded that the pharmacist Mr. Crumblehulme had employed at the shop married and left, and he was unable to find a replacement. A fine of £25 was imposed for selling poison without supervision. For selling poison in a non-labelled bottle, the penalty imposed was £2. Mr. Crumblehulme was also ordered to pay £5 5s. costs.

Theft for Purpose of Suicide

At Atherstone, Warwicks, magistrates' court, recently, William Gardiner, 11 Barn Close, Dordon, nr. Atherstone, was charged with receiving from Miss Elizabeth Stevenson, a chemist's assistant, Roman Way, Dordon, a quantity of phenobarbitone tablets knowing them to have been stolen. Miss Stevenson was charged with the theft of the tablets from her employer, Richard Milo Turner, M.P.S., Dordon. It was alleged that the couple sat in Gardiner's home taking phenobarbitone tablets in an attempt to commit suicide while Gardiner's wife was asleep upstairs. As the tablets they took "only made them feel groggy" they went back to Mr. Turner's shop and stole some more. After taking the other tablets they were found by Mrs. Gardiner and for some time they were detained in hospital. On the attempted suicide charge the two accused were placed on probation, and on the stealing and receiving charges they were given absolute discharges. Miss Stevenson, who told the court she had ended her association with Gardiner, was put on probation for twelve months. Gardiner was put on probation for two years on condition that he continued to receive medical treatment.

COMPANY NEWS

Last year's figures in parentheses

GENATOSAN, LTD. — Dr. S. J. Green has been appointed a director.

BRITISH OIL & CAKE MILLS, LTD. — Dr. W. P. Blount and Mr. J. G. Parkes have been appointed directors.

BOOTS PURE DRUG CO., LTD. — An interim dividend for the half-year ending September 30, of 3 per cent., less tax, is declared for Ordinary shareholders.

ALBRIGHT & WILSON, LTD. — The unaudited results of the group for the half-year ended June 30, show a net profit, attributable to the stockholders of Albright & Wilson, Ltd., of £646,000 (£539,000). Trading profit is £2,234,000 (£2,292,000); taxation, £740,000; group net profit, £664,000 (£556,000). In 1956 the company's U.S. subsidiary, Oldbury Electro-Chemical

Co. was transferred to Hooker Electrochemical Co. in exchange for shares in that company. As Hooker is not a subsidiary, its profits have not been consolidated in the group figures, and only dividends received from Hooker have been included, whereas, in the 1956 figures, the full profits of O.E.C. Co. were consolidated.

MONSANTO CHEMICALS, LTD. — A first interim dividend of 5 per cent. less tax, on the company's ordinary shares, is declared. Unaudited results for the first six months of 1957 are: Net sales, £7,930,927 (£6,934,343); net income before taxes, £870,738 (£787,722); estimated taxes, £443,200 (£404,200). The figures relate to the company and its United Kingdom subsidiaries only and do not include earnings of its Australian subsidiary. Turnover for the first six months of 1957 is the highest recorded for any first six months of a year and is equal to an increase of 14.4 per cent. over the corresponding period of 1956; export business is up by 24 per cent. on the same basis.

VITAMINS, LTD. — Dr. M. D. Wright and Mr. D. W. Bicheno have



Dr. M. D. Wright

Mr. D. W. Bicheno

been appointed joint deputy managing directors. Mr. H. C. H. Graves continues as chairman and managing director.

New Companies

P.C. = Private Company; R.O. = Registered Office

HARRY ISAACS (CHEMISTS), LTD. (P.C.) — Capital £100. To carry on the business of wholesale and retail chemists, etc. R.O.: 71 Albany Road, Cardiff.

BECKDALE LABORATORIES, LTD. (P.C.) — Capital £1,000. To carry on the business of chemical manufacturers, etc. Solicitors: Coward Chance & Co., St. Swithins House, Walbrook, London, E.C.4.

INVISI-AIDS, LTD. (P.C.) — Capital £100. To carry on the business of manufacturers and distributors of hearing aids, etc. Directors: William R. Pritchard and Anthony G. Smith. R.O.: 39 Petersham Road, Richmond, Surrey.

C. S. CHALLINOR, LTD. (P.C.) — Capital £2,000. To carry on the business of wholesale or retail chemists, etc. Directors: Marjorie Challinor and Bedford W. Pygott, M.P.S. R.O.: 141 Lower Oxford Street, Castleford, Yorks.

DICK, SON & LEWIS, LTD. (P.C.) — Capital £2,500. To carry on the business of manufacturers of and dealers

in chemical and photographic material; etc. Solicitors: Clifford Turner & Co 11 Old Jewry, London, E.C.2.

PHANEX, LTD. (P.C.) — Capital £5,000. To carry on the business of manufacturers, importers and exporter of and dealers in cosmetic preparations: medicines, drugs, etc. Solicitors: Herbert Oppenheimer, Nathan & Vandyke 20 Cophthall Avenue, London, E.C.2.

JOHN HEWITT (BIRKENHEAD) LTD. (P.C.) — Capital £1,000. To carry on the business of manufacturing, dispensing and analytical chemists, etc. Directors: Jessie Hewitt, Frederick J. Tresidder and Ernest Clarke. R.O.: 11 Grange Road, Birkenhead.

DUNHAM CHEMICAL, LTD. (P.C.) — Capital £100. To carry on the business of manufacturers of and whole sale and retail dealers in chemical: gases, disinfectants, etc. Directors: Reginald T. Arnold and Elsie K. Baker (director, British Carbide Factories Ltd., etc.). R.O.: 34 Victoria Street S.W.1.

BUSINESS CHANGES

MISS MARY O'DONOGHUE M.P.S.I., has opened a pharmacy in Douglas Road, Cork.

W. H. WANDLESS, LTD., have acquired the pharmacy of Mr. T. W. Allison, M.P.S., 21 Lowther Street Whitehaven, Cumberland.

JEAN SORELLE, LTD., 21 Turl Road, London, N.4, and its associate are being carried on by Mrs. H. Fernley and Mr. H. J. Cane (the present directors of the company) following the death of the chairman and managing director (Mr. H. J. Fernley).

AN association to fuse all manufacturing and marketing interests of Lilia Ltd., and Dr. White's, Ltd., has been formed. All trading will now be carried out in partnership under the title Lilia White Associated Companies. Day-to-day operating, accounts, administration, etc., will be carried out under the divisions at 256 Old Street, London, E.C.1 and Lomeshaye Mill, Nelson, Lancs.

Appointments

KELDON, LTD., Perivale, Middlesex, have appointed Mr. W. E. Carpenter their representative for the Midland and Wales.

AMONG new appointments announced by Sparklets, Ltd., Tottenham are: Mr. E. H. Amis (superintendent of the syphon section) and Mr. J. H. Britton (chemist).

NEWTON, CHAMBERS & CO LTD., have appointed Mr. James Abernethy, 1 Earlswood Park, Strandtown Belfast, trade sales representative for their chemicals division, for Northern Ireland.

OVERSEAS VISIT

MR. P. J. C. Bovill (managing director, Newton, Chambers & Co., Ltd.) sailed on August 16 for the United States of America, on a combined holiday and business trip. Before returning to England about the end of September he will have visited important business associates in that country.

BIRTH

MILLER.—At Elsie Inglis Maternity Hospital, Edinburgh, on August 11, to Jane, wife of Drysdale P. B. Miller, M.P.S., F.B.O.A., Dunara, Gorebridge, Midlothian, a son.

MARRIAGES

HAMMOND—MOUNTAIN. — At St. John's Church, Menston, Yorks, on August 21, Bruce Richard Hammond, M.P.S., 31 Haworth Road, Bradford, to Emley Sonia Mountain, Oakfield, Burley Road, Menston.

Golden Wedding

WILLIAMS—WALDEN. — At St. George Presbyterian Church, Oakfield Road, West Croydon, on August 8, 1907, David John Williams, 300 London Road, Croydon, to Violet May Walden. Present address: 44 Vale Street, Denbigh, North Wales. Mr. Williams, who is aged seventy-two, has been a member of the Pharmaceutical Society for fifty years. He was in business at Croydon for over forty years, was twice president of Croydon Pharmacists' Association and was treasurer of the Association and local Branch of the Pharmaceutical Society for twenty-five years.

DEATHS

CLARKE.—At Kent and Canterbury Hospital on August 21, Mr. Walter Cyril Clarke, M.P.S., 48 Joy Lane, Whitstable, aged fifty-eight. Mr. Clarke had been in business in Harbour Street, Whitstable, for many years. He was past-master of Tankerton Lodge No. 5153, and a founder member of Whitstable Rotary Club. Among the many pharmacists at the funeral service, Councillor K. J. Baldwin, M.P.S. (chairman, Whitstable urban district council), and Mr. S. G. Willey (secretary, East Kent Branch, Pharmaceutical Society) represented the Branch.

COLE.—On August 20, Mr. Frank William Cantle Cole, M.P.S., Almondsbury, Glos, aged fifty-two. Mr. Cole started in business as a chemist in Gloucester Road, Horfield, Bristol, twenty-one years ago. He acquired five shops in the city and founded the business of Cole Chemist (Bristol), Ltd.

ENGLAND. — At 30 Leeds Road, Harrogate, Yorks, on August 20, Mr. Herbert England, M.P.S., aged eighty-five. Mr. England joined Taylors Drug Co. as an apprentice in 1887 when it comprised only nine shops. He qualified in 1897 and for some time was manager of the branch at Upper Millergate, Bradford.

He became a district manager and ultimately a director and superintendent chemist. He was for some years a representative of the company on the Pharmaceutical Committees of Leeds and of

the West Riding of Yorkshire, and was at one time chairman of the latter. For fifteen years he was a member of the Central N.H.I. Committee. He and his wife were regular attenders of the British Pharmaceutical Conference. He retired from the board of Taylors Drug Co., Ltd., in 1952. He is survived by his widow, a son and two daughters.

Mr. R. W. Gillham writes: Mr. England had a wide knowledge of pharmaceutical affairs and he retained his keenness and mental alertness to the last. Those qualities combined with a quiet, imperturbability and a certain dignified charm of manner, earned the respect of all his business colleagues.

FERNLEY. — On August 15, Mr. Henry James Fernley, chairman and managing director of Promedico Products, Ltd.; Jean Sorelle, Ltd.; and Coppelia Perfumeries, Ltd.

HIGGINS. — Recently, Mr. Thomas Dominic Higgins, M.P.S.I., 25 Castle Street, Tralee, co. Kerry. Mr. Higgins qualified as a pharmaceutical chemist in Ireland in 1950.

HIND.—On July 27, Mr. Edward Burnell Hind, M.P.S., 103 Hendon Road, Sunderland. Mr. Hind qualified in 1913 and had been in business in Sunderland some ten years.

HOUSEMAN.—On August 11, Mr. Leslie James Houseman, M.P.S., 309 Bethnal Green Road, London, E.2. Mr. Houseman qualified in 1925.

LEWIS. — At St. Olave's Hospital, London, S.E.16, on July 31, Mr. Robert Alun Lewis, M.P.S., 154 Southwark Park Road, London, S.E.1, aged seventy-seven.

LYLE. — On August 2, Mr. James Alexander Lyle, M.P.S., 4 Ryden Avenue, Cleveleys, Lancs. Mr. Lyle qualified in 1896.

McLACHLAN. — On July 29, Mr. Douglas George Ramsay McLachlan, M.P.S., 4 Kingsmead Avenue, Tolworth, Surrey. Mr. McLachlan qualified in 1914.

POLGLASE. — On August 11, Mr. William Percival Vingoe Polglase, M.P.S., 47A Market Jew Street, Penzance, Cornwall. Mr. Polglase qualified in 1920.

RICHMOND. — On August 6, Mr. Joseph Louis Richmond, M.P.S., 135 Harchills Road, Leeds. Mr. Richmond qualified in 1927 and had been in business in Leeds for over twenty years.

SEATH. — At Leamington, Ontario, Canada, on August 20, Mr. Thomas James Seath, youngest son of the late Mr. John Alexander Seath, M.P.S., Dunfermline, Fife.

VENTERS. — Recently, Mr. John Warrender Venters, M.P.S., 21 Longridge Avenue, Heaton, Newcastle-on-Tyne, aged seventy-five. Mr. Venters had a pharmacy in East Wemyss, Fife, for many years. He sold his business there at the start of the 1939 war to the East Wemyss Co-operative Society, Ltd., and went to Newcastle where his daughter, Miss Mary S. Venters, M.P.S., had established a pharmacy, assisting in that business for some years.

WAITE. — On July 27, Mr. Harry Spacey Waite, M.P.S., 64 Effingham

Street, Rotherham, Yorks. Mr. Waite qualified in 1921.

PERSONALITIES

MR. L. BAILEY (managing director, Ethicon Suture Laboratories, Ltd., 126 Fountainbridge Road, Edinburgh), is one of a party of eight members of the export group of the Edinburgh Chamber of Commerce who are visiting Canada in October. The delegation is a pioneer effort by the group to extend Scottish trade in Canada.

MR. W. F. WILKINSON, F.P.S., A.C.C.S., who recently resigned the

secretaryship of the London Pharmaceutical Committee and is taking up an appointment in the secretariat of the Wellcome Foundation, Ltd., Euston Road, London, has gained the Bachelor of Laws degree of London University.



DR. S. J. GREEN, who has been appointed to the board of Genatosan, Ltd. (see p. 218), has joined the company as technical manager. Dr. Green graduated in chemistry at Birmingham in 1939, and later conducted research in the carbohydrate and hydrocarbon fields, for which he was awarded a Ph.D. in 1942. He is a member of the board of examiners of the Institution of Chemical Engineers and is also a Bachelor of Laws of London University.

INQUESTS

Child Ate Heart Tablets. — A verdict of misadventure was returned at an inquest at Newcastle-on-Tyne, on August 9, on Anthony Field, Aldwick Road, Newcastle-on-Tyne, aged two-and-a-half, who died after playing with his great-grandmother's heart tablets and saying, "I ate one." A pathologist said: "I think they are sweetish tablets and I suspect that he took more than one." The child died as the result of digoxin poisoning. The coroner said that the tablets had been put in a screw-top bottle. "That was a safe thing to do. . . . I do not think anybody can reproach themselves."

Suicide with Barbiturate. — Five tablets of Soneryl appeared to have been taken at once by Mr. William George Mayes, Kensal Rise, London, stated a pathologist at an inquest at Esher, Surrey, on August 8. Mr. Mayes was found dead in the woods at Cobham on August 5. An empty tablet container and a note were found near the body. Death was due to acute barbituric acid poisoning said the pathologist. The widow said that her husband was inclined to worry and had had a nervous breakdown. A doctor stated that he had been treating Mr. Mayes since 1950 for mental depression and when he had last seen him had prescribed Soneryl tablets, one to be taken at night. A verdict of suicide was recorded.

PACKAGING NOTES

Two Containers in One.—The Waco 10-gall. drum for chemicals is really two containers, the inner a one-piece moulded polythene shell and the casing of steel. The two containers are fitted together with shock pads where necessary. The manufacturers, Ward-Adams Co., 25 White Hart Wood, Sevenoaks, Kent, claim that the drum occupies less space than a 5-gall. demijohn and crate.

Portable Filler.—Claimed to be suitable for use with all liquids and semi-liquids, the B-B portable filling gun has a capacity range of from $\frac{1}{4}$ oz. to 1 gall. The manufacturers, H. Barker-Bland, 49 Denbigh Street, London, S.W.1, state that the gun works from any vacuum supply, and is available in two sizes, and with or without vacuum pump. Messrs. Barker-Bland also manufacture non-drip gravity accurate measure fillers for any capacity from 10 c.c. upwards.

A new Tape "Dispenser."—John Goshon & Co., Ltd., Packaging Tape Centre, Albert Embankment, Vauxhall, London, S.E.11, have designed a self-adhesive tape dispenser which can handle every one of their range of tapes. The Transotaper Major can cut filmic, cloth, cambric, masking, cotton, paper, PVC and reinforced tapes. It is fitted with a patented safety guard, and spare blades can be fitted in seconds. The Transotaper Major is claimed to be so designed that an easy changeover to different diameters of cores may be effected in seconds.

Unscrambling Table.—To keep a steady flow of containers moving to automatic weighing and packing machines, Autopack Ltd., Caroline Street, Birmingham, 3, have introduced an unscrambling table made up of a loading platform, a circular table which will marshal the containers into the required pattern and into take-off points feeding conveyors. The loading station is on the same level as the circular table, and after containers have been placed on the loading

station it is merely necessary to push them forward on to the revolving table. The containers are then carried round until contact is made with the two spring arms mounted on a bracket, which allows for considerable adjustment in the feed of the containers to the perimeter of the table where they

are retained by a guide rail. Containers surplus to the feed requirements of the packing machine push past the spring arms and make further circuits of the table until required. By means of the spring control one table can be arranged to feed two packaging machines with containers.

TRADE NOTES

Distributors to Chemists.—The new Tiss tissue of Spicers, Ltd. (see C. & D., August 17, p. 172) is being distributed to the pharmaceutical industry by Evans Medical Supplies, Ltd., Speke, Liverpool, 19.

An Additional Pack.—New Era Laboratories, Ltd., Cecil House, Holborn Viaduct, London, E.C.1, have introduced a new size of Nervone nerve nutrient containing three months' supply. The previous size (one month's supply) continues available.

Distribution Completed.—County Laboratories, Ltd., Honeypot Lane, Stanmore, Middlesex, state that their new shampoo Water Lilies has now been distributed throughout the whole country. A free sample is included in every copy of the October issue of *Woman and Beauty*.

Additional Distributors.—Quickfit & Quartz, Ltd., Stone, Staffs, have appointed two additional distributors and stockists of their range of interchangeable laboratory glassware. They are:—Hospital and Laboratory Supplies, Ltd., Charterhouse Square, London, E.C.1; and Scientific Furnishings, Ltd., Poynton, Ches.

rates, with the advantages of reduced costs of packing, insurance, storage and handling.

Restyled.—Racasan, Ltd., Ellesmere Port, Ches, have restyled the pack of their Space germicidal room deodorant

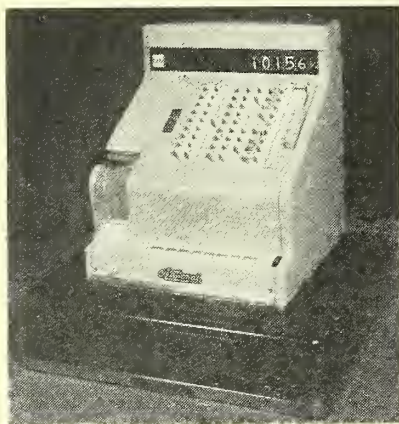


as shown. Claimed "a very good" deodorant, Space contains bactericides and helps to prevent the spread of air-borne infection.

End of Shortage in Sight.—Many chemists are understood to have experienced difficulty in obtaining supplies of Thermos brand vacuum flasks in sufficient time or quantity to meet the seasonal demand, so much heavier this



A RANGE OF PACKS: Jar and two sizes of collapsible tube in which Lustre-Creme shampoo is issued by the makers, Colgate-Palmolive, Ltd., 145 Charing Cross Road, London, W.C.2.



TWO-IN-ONE: Recently added to the range of the National Cash Register Co., Ltd., 216 Marylebone Road, London, N.W.1, is an attractively designed register, the Twenty-One, which records at one operation amounts from 1d. to £99 19s. 11½d. A fully itemised and totalled purchase list is printed and issued for the customer on every transaction and at the turn of a key the register becomes a high-speed adding machine.

Urgent Medicines by Air.—The flying-out to Addis Ababa, capital of Ethiopia, on August 4 of 100,000 tablets of a proprietary drug to combat the threatened spread of Asian 'flu in that country focuses attention on the Africargo service of Hunting-Clan Air Transport, Ltd., London Airport. Hunting-Clan air cargoes are understood invariably to include quantities of vaccines, serums and varied medicines destined for Africa. 10,000 strip packs, each pack of six tablets, of a proprietary anti-malarial drug were flown to Nairobi within forty-eight hours of their manufacture and packing in this country. In 1955, close on 40,000 lb., and in 1956 65,000 lb. of pharmaceutical products were carried by Africargo. The operators of the service claim that it is run at "commercially reasonable"

year than last. The manufacturers, Thermos, Ltd., Seymour Road, London, E.10, admit the shortage, which they point out is as detrimental to themselves as their customers, but attribute it to exceptional production difficulties, affecting both supplies and labour. Last year's bad weather brought lowered flask sales which led the trade to reduce stocks. This year, continuously fine weather in the spring and early summer created an unprecedented demand which has continued on the same scale. Unfortunately it takes time to train glass operators, and only now are the effects of extraordinary measures taken by the company beginning to be felt. An ambitious publicity scheme has been planned for the Christmas season, and retailers are assured that deliveries will be available to meet their demands.

Messrs. Thermos express thanks that most customers have understood the difficulties.

Bonus Offers

REXALL DRUG CO., LTD., Loughborough, Leics. Thru rheumatic application. Thirteen in display outer charged as twelve.

BOOTS PURE DRUG CO., LTD., Station Street, Nottingham. Fenox nasal drops. Thirty-six bottles for price of thirty-three. September 2-30 only.

POTTER & CLARKE, LTD., River Road, Barking, Essex. Pharmaceutical pastilles (various). Thirteen for price of twelve. On minimum of 3 doz. September 2 till November 30.

B.G.P. (COSMETICS), LTD., 37 Ches-

ham Place, London, S.W.1. Lip-Cote. Large size fourteen to doz. Small size thirteen to doz. During September.

ALLEN & HANBURYS, LTD., Bethnal Green, London, E.2. Allenburys' pastilles. Direct orders only for 6 doz. (or more) charged at 11/12ths of trade price. *Haliborange tablets*. Direct orders for one or more of listed parcels charged at 10/12ths of trade price for each complete dozen bottles. The parcels are:—12 doz. bottles of twenty-five; 8 doz. bottles of twenty-five and 1 doz. bottles of 100; 4 dozen bottles of twenty-five and 2 doz. bottles of 100; 3 doz. bottles of 100. Complete parcels only will be supplied as merchandising units with four display outers of consumer samples, one wire "dispen-

ser" and one metal showcard. Retail chemists only, September 2 to October 12.



Display material with parcels of Haliborange.

NEW PRODUCTS AND PACKS

Anti-rheumatic Application.—Rexall Drug Co., Ltd., Loughborough, Leics, are introducing a new anti-rheumatic application, Thru, in 2-oz. bottle.

Buffered Prednisolone.—Pfizer, Ltd., 137 Sandgate Road, Folkestone, Kent, have introduced a buffered prednisolone preparation Deltacortril AF (antacid formula). Each tablet contains 5 mgm. of prednisolone and 300 mgm. of dried aluminium-hydroxide gel. The pack is a bottle of 100 tablets.

Controlled Hypotension in Surgery. Duncan, Flockhart & Co., Ltd., Wheatfield Road, Edinburgh, 11, announce the availability of a new speciality, Trophenium brand phenacyl homatropinium chloride, for the production of controlled hypotension during surgical procedures. Trophenium product is a solution put up in boxes of six and fifty ampoules, each containing 250 mgm. in 5 mls.

Low-dosage Sulphonamide.—Lederle Laboratories Division, Cyanamid of Gt. Britain, Ltd., Bush House, Aldwych, London, W.C.2, announce the introduction of Lederkyn sulphamethoxy-pyridazine tablets, a new low-dosage sulphonamide. The greater potency claimed for the drug is understood to stem from its greater solubility and more rapid absorption into the bloodstream. The effect is heightened by unusually long retention in the body before excretion. The packs are bottles of twenty-four, 100 and 500 tablets.

Buccal-infection Treatment.—Knox Laboratories, Ltd., 46 Hertford Street, London, W.1, announce the introduction of a new medicinal speciality, Bocasan, for the treatment of buccal infections such as pyorrhoea, gingivitis, etc., by nascent-oxygen therapy. By an exclusive co-crystallisation process, the manufacturers claim, two previously incompatible salts, anhydrous sodium bitartrate and monohydrated sodium perborate, are combined in a stable compound that may be stored indefinitely. Bocasan is instantly and completely soluble by the addition of water, providing one of the most potent sources of nascent oxygen. Its pH is approximately 8 (nearly neutral).

"Safety" Bleach.—In a campaign confined at present to Lancashire, Yorkshire and the north Midlands, Neatex Products, Ltd., Wern Mills,

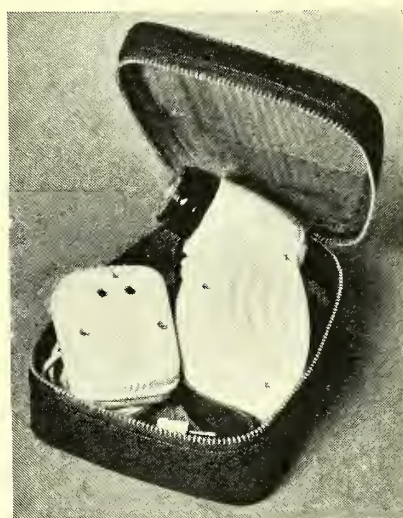
Queensferry, North Wales, are launching a new product, Satinex safety bleach, an odourless powder and the "only bleach guaranteed safe for all fabrics, especially nylon and wool, which could not be bleached before." Satinex safety bleach is marketed in a distinctive pyramid-shape pack.

Autumn Lipstick Shade.—Gala of London, Ltd., Hook Rise, Surbiton, Surrey, have introduced a new lipstick shade for autumn and winter use. Night Sari peach is "an intense new version" of Sari peach.

Non-smear Lipstick.—Revlon International Corporation, 86 Brook Street, London, W.1, are widely advertising from September 6 their new Lanolite non-smear lipstick "for the woman who wishes she did not have to put lipstick on three or four times a day."

"Compelling" Campaign for New Perfume.—In launching in this country Primitif perfume, Max Factor, Hollywood & London (Sales), Ltd., 16 New Bond Street, London, W.1, describe it as "a product to revolutionise ideas of perfume sales." The fragrance is "sensational," and the presentation "superlative." Range comprises perfume, Cologne (in 2-oz. and 4-oz. sizes) and talc.

Versatile Dry Shaver.—Perihel, Ltd., 146 New Cavendish Street, London, W.1, have followed up the recent introduction of their Travelux rechargeable electric dry shaver with another shaver, the Accura 3, which may be operated from a car battery, mains supply, or a built-in dry battery. The kit includes a miniature transformer attachment for use on any 110 to 250 volt a.c. mains circuit. Powered alternatively by the two batteries, it gives ten to twelve



weeks' shaving without renewal of the batteries. Like the Travelux, the Accura 3 is fitted with a rotary cutting head. The blades are spring mounted and "self-sharpening" on the shaver foil. They are capable of nearly 4,000 revolutions per minute. Kit, shaver, transformer, cord, car dashboard socket, and plug are in a zipped leather case.

Composite Hair-grip Pack.—Newey Brothers, Ltd., Birmingham, have introduced a new "beauty queen" pack in which 20 cushion tipped Newlock hair-grips are mounted with four cushion-tipped Blendrite grips on a card folder illustrated with hints on hair setting by the Mayfair stylist Victor. The "beauty queen" grips are available in brown, black, blonde and grey.



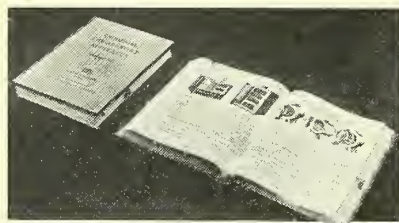
NEW LOOK FOR A TOILET SOAP: Picture shows, right, a new wrapper for Cidal soap (J. Bibby & Sons, Ltd., King Edward Street, Liverpool, 3). It carries a white lady motif against a striped background in grey and blue shades. On the left is the former wrapper with white and black type against a yellow ground. Supplies are being sent in the new wrapping from September.

INSTRUMENTS AND APPARATUS

Pipette Filler.—The Microid pipette filler, marketed by Griffin & George, Ltd., Ealing Road, Alperion, Wembley, Middlesex, has a capacity of about 60 mls and is fitted with a rubber three-valve control unit containing spherical plastic valves controlled by pressure of finger and thumb. The filler is without metal or fragile parts; it may be used with bulb or cylindrical pipettes up to 100 mls capacity, or on the reservoirs of automatic burettes.

Direct-reading Fluorimeter. — A new direct-reading fluorimeter (model 27) has been developed by Electronic Instruments, Ltd., Richmond, Surrey, in conjunction with Boots Pure Drug Co., Ltd., Nottingham. In this instrument the fluorescence of the standard

ton, Wembley, Middlesex, have published a new chemical laboratory apparatus catalogue (56S). The volume comprises about 700 pages of factual text, well illustrated, of over 20,000 items covering the general chemical apparatus requirements of those engaged in educa-



tion, industry and research. The new catalogue replaces the earlier editions published by the companies incorporated in the group: Griffin & Tatlock catalogue 15B, general apparatus section up to and including p. 751; W. & J. George & Becker catalogues, twenty-fifth edition and abridged 25A; Standley Belcher & Mason 1939 price list of general laboratory apparatus, etc. Users are requested to quote from the new publication, which carries a completely new system of numbering under the prefix S.

Flame Chromatograph. — Shandon Scientific Co., Ltd., 6 Cromwell Place, London, S.W.7, have designed the Shandon flame chromatograph for gas chromatography as a highly sensitive, extremely selective and rapid method of analysis. The apparatus is claimed to be the only one available commercially where detection is achieved by simply burning the exit gases at the end of a chromatographic column in a micro-flame and continuously monitoring its temperature. The Shandon flame chromatograph has been designed on the unit principle to make the equipment as flexible as possible and capable of dealing with a great variety of work; up to four analysers may be operated from the central unit.

Apparatus that Reads. — Apparatus that can read and recognise ordinary printed material at a rate of 120 characters a second has been developed by the Solartron Electronic Group, Ltd., Thames Ditton, Surrey. The apparatus which is called ERA (electronic reading automaton) is designed for use with computers. Later models will read up to 300 characters per second. Each character is scanned by a flying-spot scanner and if the character is divided into 100 similar size areas, the information obtained from each area as to its lightness or darkness enables the recogniser to determine which character has been scanned. In point of fact the analysis of four areas would distinguish 0 to 9 plus six alphabetical letters so that the information supplied to ERA is far in excess of requirements. That excess enables the apparatus to overcome unreliability that would otherwise be caused by blurring, mutilated characters, dirt, folds in the paper, cancelled characters, etc. When the document is read, the information is electrically conveyed to the actuating

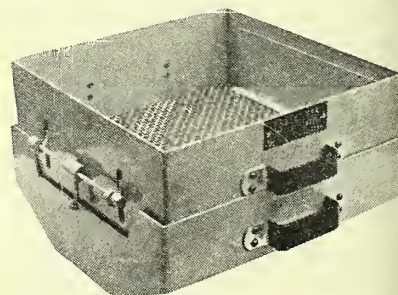
mechanism, for example a card punch which is then operated at many times the speed possible by any human being. The cards or punched tape are then fed to a computer. As an example of the type of operation for which such an apparatus could be used, a retail chain store using cash registers might employ a reading machine for analysing sales for 100 or 200 cash registers in the shops.

Laboratory in a Briefcase. — Quick fit & Quartz, Ltd., Stone, Staffs, are marketing a condensed version of the small-scale interchangeable jointed laboratory apparatus "which will really go into a briefcase." It is claimed by the makers that the apparatus will revolutionise the teaching of chemistry in schools because of the immense reduction in time wasted setting up assemblies before any experiment can begin. "Less than one minute after taking the boxed set off a shelf, a complicated apparatus can be set up and working. Twenty small components are packed in a strong box measuring 11 x 9 x 2½ in. and weighing 3 lb. A dozen different assemblies of apparatus may be built up, for filtration, separation, reflux and distillation with or without stirring or vacuum. The box not only provides protection in transit without the need for troublesome packing material, but serves permanently for storage. It opens out to form a stand on which the apparatus may be assembled without the need for any additional clamps and supports."

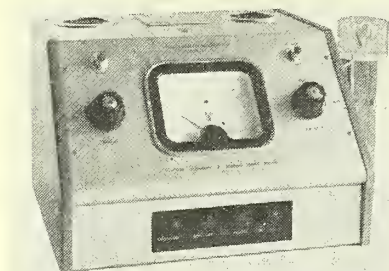
PLANT NOTES

Chemical Plant Monographs. — Th monographs "Scientific Bases for the Execution of Chemical Processes under Practical Conditions," forming Dechema monographs Nos. 392-410, Volume 29 are available from Dechema (*Deutsche Gesellschaft für chemisches Apparatewesen*, Frankfurt-on-Main, 7, Germany) price to members DM 33.75; to non-members DM 42.15.

Chemical Flow Sheets. — A new set of leaflets has just been published under the title "Chemical Production Flow Sheets, Plant Diagrams" by *Deutsche Gesellschaft für chemisches Apparatewesen*, Frankfurt-on-Main, 7, Germany. The set consists of forty sheets, size 210 mm. x 297 mm., printed on one side, in duplicated typescript, and contains 220 diagrams representing the type of equipment which are most commonly used in chemical technology.

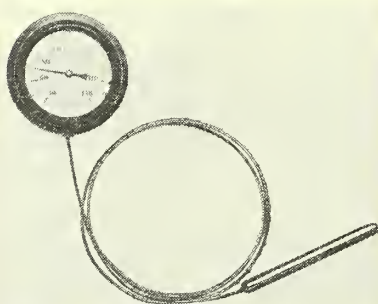


Portable field sieve by Endecotts (Filters), Ltd



is first measured by photo-electric means, and the measurement of that of the sample follows. The measurement of the fluorescence is displayed as a direct reading on a meter, the comparison being simple and numerical. Once the simple standardising procedure has been completed, samples may be checked rapidly.

Thermometer in Plastic. — The thermometer illustrated has been specially designed to meet the needs of industries where steam, acids or other corrosive fumes shorten the efficiency life of a thermometer. The instrument, which is waterproof, steamproof and acidproof, is being marketed by Tool



Treatments (Chemicals), Ltd., Colliery Road, Birmingham Road, West Bromwich, Staffs. Of the vapour pressure type, it has a 4-in. easily read dial completely housed in a plastic case with screw-on front. The plastic-coated 6-ft. capillary and bulb makes the product extremely robust. The thermometer, which can be wall-mounted, is supplied with temperature range to specification.

Chemical Apparatus Catalogue. — Griffin & George, Ltd., Ealing Road, Alper-

FIGURES IN THE PHARMACEUTICAL WORLD

THE chairman of the British Pharmaceutical Conference 1957 brings to his office a wide and varied knowledge of pharmaceutical science and industry and a long and close association with the Conference meetings. Today director of research at The British Drug Houses, Ltd., London, N.I., Dr. Hartley has given abundant evidence of an energy, drive and forthrightness which were, of course, already well known to his colleagues on the Conference Executive.

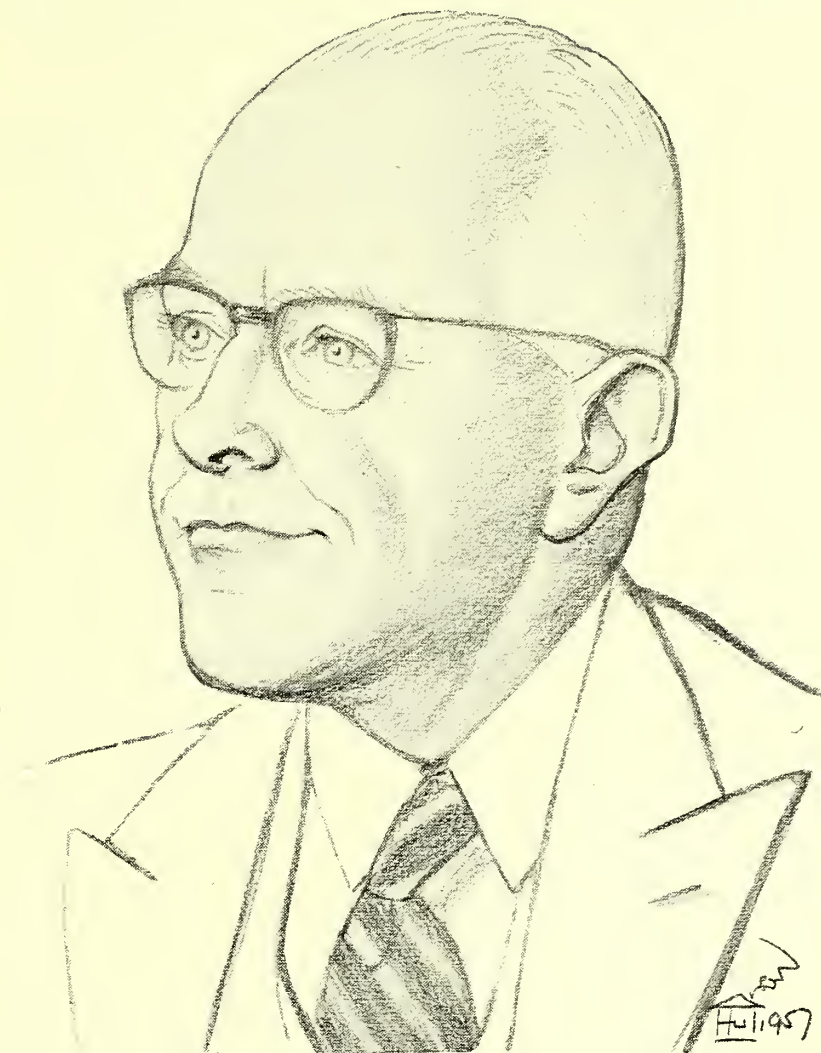
Dr. Hartley entered pharmacy by way of an apprenticeship with Mr. James Hayhurst, M.P.S., at Nelson, Lancs, and later had experience as an assistant at pharmacies in Mablethorpe, Lincs, and Sheringham, Norfolk. He passed Part I of the Qualifying examination in 1929 under the old "oral and practical" conditions. The following year he was awarded the Jacob Bell scholarship.

At the end of a two-year inter-collegiate course at University College, London, and the school of pharmacy, University of London, he gained the school's silver medals in pharmaceuticals, pharmaceutical chemistry and pharmacognosy and passed the Pharmaceutical Chemist examination. A year later he was awarded first prize in an intermediate B.Sc. course at Birkbeck College, London. Still greater honour came when he gained a first-class honours degree in chemistry, with distinction, first prize for the course and a first ranking among internal chemistry students in the university. From 1933 to 1940 he was successively demonstrator and lecturer in chemistry at the school of pharmacy, gaining his Ph.D. for research work under Professor Linnell. From 1940 to 1943 he was chief chemist and factory manager to Organon Laboratories, Ltd., and from 1943 to 1946 secretary both of the Therapeutic Research Corporation and of the general penicillin committee of the Ministry of Supply.

His present appointment as scientific services director of The British Drug Houses, Ltd., dates from 1946. In that capacity he has travelled widely in Africa, America and Europe.

Dr. Hartley was appointed to the British Pharmacopoeia Commission in 1953 and is chairman of three of its committees, including that on hormones and vitamins. For eight years he served as examiner in pharmaceutical chemistry to the Pharmaceutical Society, and for four as recorder of the Fine Chemicals Group of the Society of Chemical Industry. He is treasurer of the Chemical Council, a member of Council of the Royal Institute of Chemistry, of which he was elected a Fellow in 1941. He is also a member of the Society for Analytical Chemistry.

His first acquaintance with the Conference came in 1934 when at Leeds he presented a paper on "The Use of Diphenylamine in the Assay of Saccharated Iron Compounds." The chairman on that occasion was Dr. C. H. Hampshire and the senior general secretary was Mr. C. E. Corfield. Mr. Corfield must have been impressed with



53. DR. FRANK HARTLEY

the newcomer's paper for though, as is well recalled, he could on occasion be a devastating critic, he invited Hartley's co-operation in carrying out certain physico-chemical studies utilising techniques applied by Hartley in his research for his Doctorate. Hartley also worked closely with Corfield for some years as examiner's assistant.

In the twenty-three years that have passed since that first paper was presented, Dr. Hartley has seen a marked change come over the character of the Conference. The science sessions in those days were small, an attendance of thirty or forty being considered good. The changes imposed by war conditions, he considers, were principally responsible for a change of direction to a more critical evaluation of and discussion on the science papers. The war, in virtually eliminating the social and festive aspects of the Conference, nevertheless brought into renewed prominence its prime purpose and also brought together more closely those pharmacists most actively concerned with manufacturing and academic as-

pects of pharmacy. With the return of freer conditions the open-forum aspects of the science sessions have not only been maintained but have attracted a growing number of pharmacists not actually engaged in research—encouraged, perhaps, by the cut-and-thrust of the discussions to appreciate that they can derive something of advantage to themselves in the practice of their craft.

This development has impressed Dr. Hartley so strongly that his influence can be expected to be exerted in two directions: not to narrow too greatly the appeal of the Conference to pharmacists of all kinds; and to maintain and develop that function of the science session which comes *after* the presentation of the paper—namely free discussion by others whether engaged in parallel researches, in researches elsewhere, or in no research work whatever. On occasion that may involve time wasted on irrelevancies, but over the whole field it will ensure life, vigour and purpose for the Conference. Many who have attended the readings

of papers at scientific conferences where time has not been available for discussion would be disposed to support those views. Another matter on which the Conference has in Dr. Hartley a doughty champion is the value of British research. He expresses with

evident confidence his belief that this country, with less financial resources than some others, has an equal or greater likelihood of producing original results in pharmaceutical development.

It would be unfair and false to convey the impression that Dr. Hartley is

solely concerned at the Conference with the science papers. No one more strongly upholds the importance of the social side and, as the director of a commercial company, no one is less likely to allow academic aspects to over-ride practical realities.

BRAZILIAN CUSTOMS TARIFF CHANGES

Duty will increase medicine costs

A NEW law by the Brazilian Government (law 3,244) of August 14, substitutes fixed import duties by *ad valorem* rates. The new tariffs range from free entry to 150 per cent. on the c.i.f. value of the merchandise. Rates are being revised half-yearly, but no alteration exceeding 30 per cent. may be made in any one revision, except to counteract "dumping." The most common rate is 10 per cent., which covers 286 per cent. of the imports. When national production of raw materials, or of any basic product, is insufficient to meet local consumption, an exemption, or reduction, of the corresponding rate may be granted.

While the need for some measure of exchange control persists, merchandise is being grouped in two categories, "general" and "special." The former covers goods now included in categories 1, 2 and 3, namely raw materials, production goods and consumer goods in short supply on the domestic market and includes practically all manufactured chemicals and pharmaceuticals, as well as raw materials. The special category covers non-essential consumer goods and those for which the local supply is unsatisfactory.

Minimum premiums for exchange certificates sold at auction for general category imports are abolished. So, also, are import licences for that category of goods when exchange cover has been acquired at auction. Imports are prohibited at lower exchange rates than those ruling for general category merchandise, except in specific cases. The import licence system is to be extinguished within one year and law 3,244 implies that exchange auctions will be abolished, but does not specify when.

The "fiscal dollar," namely the conversion rate for U.S. dollars or the equivalents in other currencies, for calculating duties in cruzeiros, is fixed at 70 cruzeiros for the coming quarter. It is being revised quarterly during the next twelve months. The initial rate is based on the average cost of exchange certificates for category 1 and 2 imports in recent months.

The Brazilian Pharmaceutical Association has appealed for an amendment authorising special auctions exclusively for the purchase of certificates to import pharmaceutical raw materials. Because of restricted competition the exchange premiums are relatively low at special auctions. The Association points out: (1) that exchange availabilities for that purpose could be limited to U.S.\$40 millions annually in all currencies and that that amount could be withdrawn from general auctions; (2) that the number of finished pharmaceutical products to be imported has been reduced since 1953 from 4,000 to thirty,

effecting an immense saving in foreign exchange; (3) that law No. 3,244 authorises special sales for certificates to import fertilisers, insecticides and vitamin rations for veterinary use, but includes raw materials for human therapeutics in the "General Category," thereby inflating the cost of medicines. The memorandum of the Association quotes the number of pharmaceutical laboratories in Brazil at 525. The value of sales in 1956 is estimated at 11,362 million cruzeiros (say £56,810,000) and the capacity of antibiotic factories is sufficient to meet local needs and leave an appreciable margin for export.

The Federal Supply and Price Commission (C.O.F.A.P.) has been investigating the cause of the constant increases in the cost of medicines, with a view to controlling prices, but further action has been deferred until the effects of the new law can be ascertained. The application of *ad valorem* duties to pharmaceutical raw materials

is expected to increase the cost of medicines owing to heavy imports, particularly of alkaloids. C.O.F.A.P. hopes eventually to oblige laboratories to add the sales price of their products to the labels. That, it believes, will enable the public to exercise a measure of control over prices, since the retailer's maximum legal profit is limited to 30 per cent.

Two recent fatalities of allergic reaction in one week have revived a demand for enforcing the law that specific medicines, including antibiotics, shall only be sold against medical prescription. Druggists are reported to sell daily, without restriction, between 300,000 and 500,000 cruzeiros' worth of medicines for which the law demands a doctor's certificate. Enforcement of the law is difficult owing to widespread popular ignorance and poverty, insufficient State medical assistance, high charges for private consultations and scarcity of doctors in rural districts.

MISCELLANEOUS INQUIRIES

Pine Disinfectant

Can you give me a formula for a pine disinfectant?

THE following formula will probably meet your requirements:—

Pine oil	15 parts
Potassium hydroxide	4.2 parts
Linseed oil	21 parts
Industrial methylated spirit	3 parts
Water	to 100 parts

Heat the linseed oil, spirit, and potassium hydroxide, dissolved in forty parts of water, until saponification is completed. Then add the pine oil and complete with water to 100 parts.

Foot Rot in Sheep

Could you please supply a formula for a liquid preparation for the treatment of foot rot in sheep and containing copper sulphate, butter of antimony and possibly commercial hydrochloric acid?

A SOLUTION which has been widely used in the past for the treatment of foot rot consists of an aqueous solution containing 10 per cent. copper sulphate and 20 per cent. butter of antimony. It is unnecessary to add hydrochloric acid. Whilst butter of antimony and other caustic applications have enjoyed extensive use in the past, those are now out of date, and the solutions officially approved are copper sulphate 10 per cent. or formalin 2 per cent. These are just as efficacious and much less painful to the animal.

Round Worm in Pigs

Please let me have relevant information about the use of piperazine salts for worming pigs. Which compound is to be preferred and what is the dosage for different ages and weights of pigs?

THERE is little difference between piperazine

adipate and piperazine citrate, when used against round worms in pigs. The citrate is soluble in water, and has the advantage, where poultry are concerned, that administration can be via the drinking water. Compared with other worming drugs, piperazine has a high order of activity against ascaris in pigs; it is much less toxic and safer than sodium fluoride, or oil of chenopodium; it is much easier to use, since the drug can be given in the wet or dry feed, and no starvation is required before dosing and no purgative afterwards. The drug is usually given to young pigs who are more susceptible to worms than the older animals. The dosage rate is 2½ gm. of citrate or adipate per 30 lb. weaner pig. That corresponds to the following weight, age and dose table.

30 lb.	6 weeks	2½ gm.
50 lb.	3 months	4 gm.
100 lb.	6 months	8 gm.
200 lb. and over	8 months	16 gm.

A single dose is usually sufficient for effective treatment, but if necessary it may be repeated at intervals of one or two months.

Algae on Concrete

Is there any method of eradicating the green algal growth on concrete paths and yards?

COPPER sulphate, zinc silicofluoride or magnesium silicofluoride may be used for the control of lichens and algae on concrete. The most effective application is probably either zinc silicofluoride or magnesium silicofluoride, used at the rate of 6 oz. per gall. of water. Full details regarding the control of lichens, algae, etc. on building materials are given in Digest No. 47, published by the Building Research Station, Garston, Watford, Herts.



the place of

Miltown^{*}

MEPROBAMATE

in rheumatic diseases



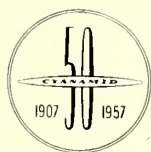
The value of MILTOWN in the relief of common rheumatic diseases is becoming more evident as results of clinical work are published. Satisfactory relief of muscle stiffness and pain has been observed in a high proportion of patients with various rheumatic conditions with a predominance of fibrositic symptoms. Impressive results have also been achieved in rheumatoid spondylitis, cervical root syndrome and mild rheumatoid arthritis. The promptness of relief following MILTOWN in these conditions has been particularly notable. MILTOWN is effective orally—typical dosage in rheumatic conditions being one tablet (400 mg.) three or four times daily.

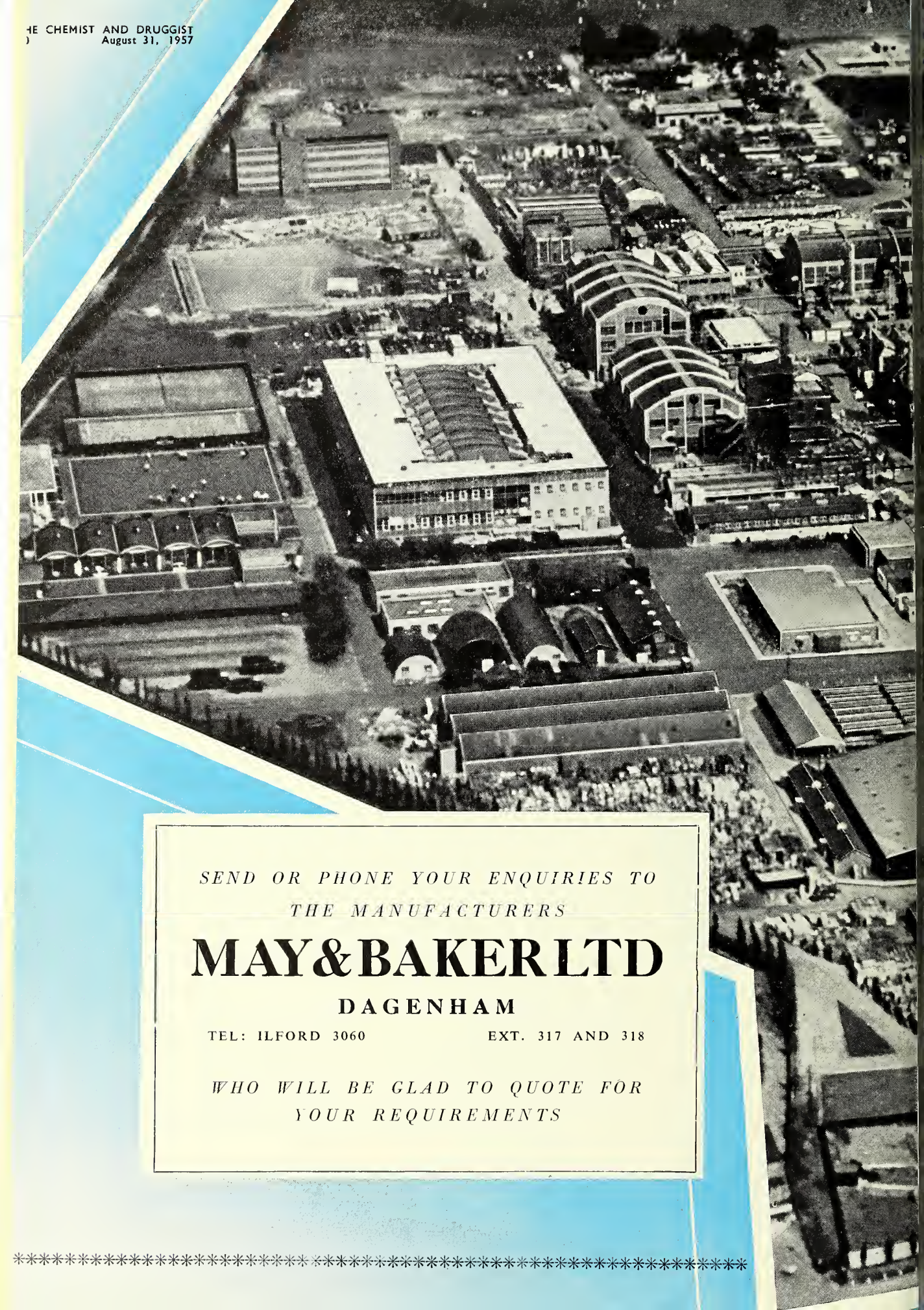
MILTOWN is presented in tablets of 400 mg. Bottles of 50 and 500

*TRADE MARK OF CARTER PRODUCTS INC.

LEDERLE LABORATORIES DIVISION

Cyanamid OF GREAT BRITAIN LTD., London, W.C.2





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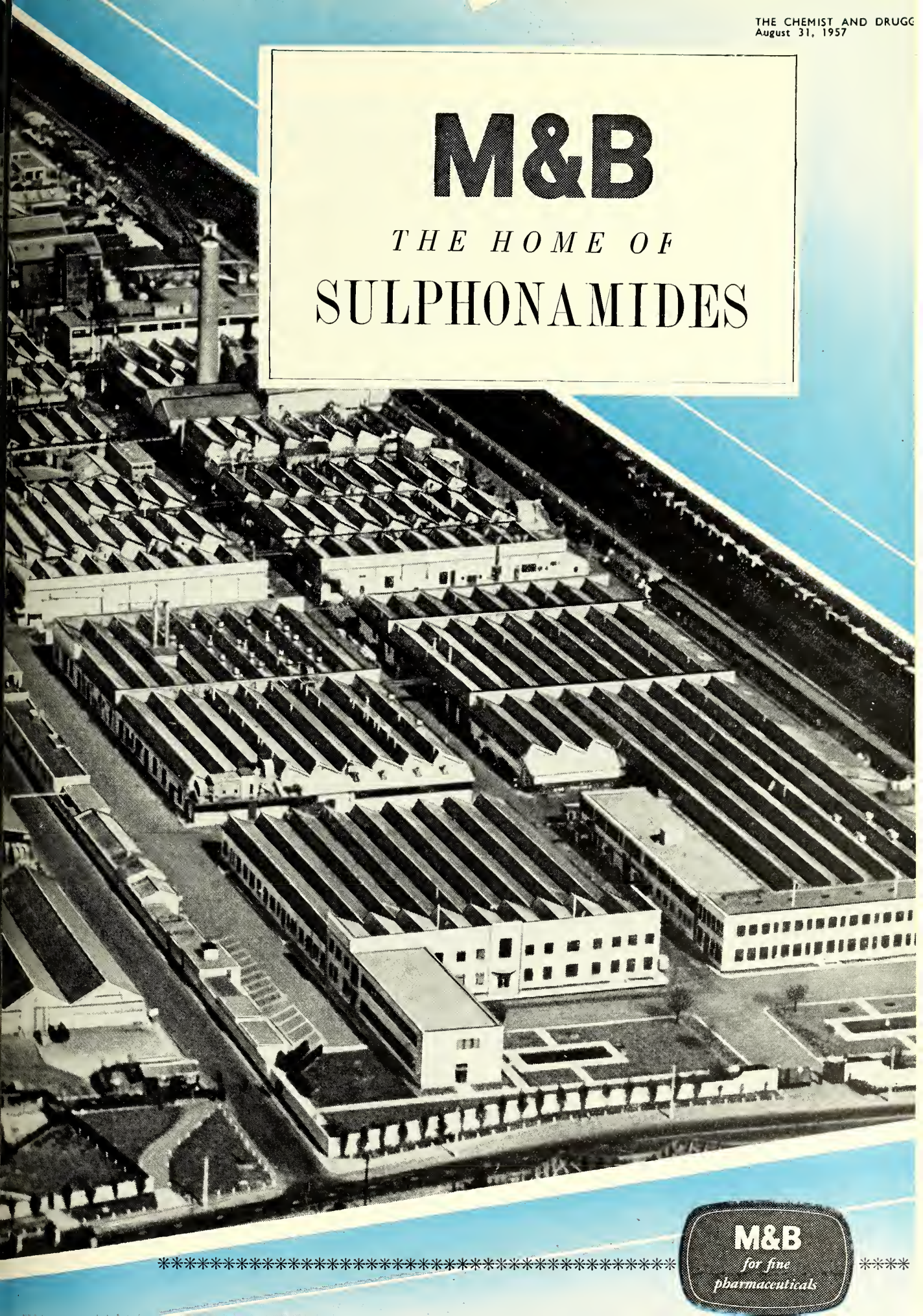
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A Group Pharmacy Landmark

THE idea of the group pharmacy takes renewed and stronger hold with the launching of a new co-operative enterprise in the second city of the United Kingdom (see p. 213). In this matter the first city, London — admittedly presenting rather a special problem—appears to be dragging its feet, for the limited-scope South-east London venture of Dulwich Dispensing Chemists, Ltd., has hardly aroused even the curiosity of pharmacists in other metropolitan districts. Significantly, one of the factors that is understood to have acted as a spur to Birmingham—the activities of the multiples—seems to have hypnotised London suburban chemists into inactivity. Birmingham private chemists were faced with (and faced up to) the probability that, the way things were going, there would soon be no central pharmacy not owned by a multiple concern. In London the largest multiple operates a day-and-night pharmacy in the most central situation of all—Piccadilly Circus—and chemists in relatively distant suburbs are quite cheerfully sending there customers with prescriptions to be dispensed after contract hours. That course is doubly unfortunate, since it faces the customer with a journey which may be costly both in time and money, and which at the same time throws the spotlight on the inadequacy of the local pharmaceutical service.

Another most significant outcome of the Birmingham enterprise has been the publicity, wholly beneficial and positive, which it has earned for pharmacists in the news columns of *The Times*, in contrast to the mainly detrimental Press publicity chemists are more accustomed to receive.

In the long run it is the service given to the public much more than any improved competitive standing *vis-à-vis* the multiples that will establish the importance and ensure the success of the Birmingham venture. We hope that the example given in a place where the difficulty of finding a suitable location must have been acute will be emulated in other towns where obstacles are smaller but the need just as strong. The accelerated formation of group pharmacies would give the best possible (and a needed) boost to the prestige and esteem in which pharmacists are held by the general public.

Overseas Trade in July

BECAUSE of a sharp rise in imports while exports remained around the same level as in June, the deficit in overseas trade rose in July to £69 millions from £38 millions.

Exports of drugs, medicines and medicinal preparations, however, were valued at £½ million more than in June while imports in the same class at £634,469 were about £206,000 more. Nevertheless those imports were still below the monthly average for the first half of the year.

A comparison of the figures in the accompanying tables with those of recent months shows that there was a considerable rise in imported antibiotics during July, the value was actually the highest ever recorded for any month. On the export side July values for penicillin were at their highest so far this year while proprietary medicines went over the £1 million-mark for the third time this year. Exports of vitamins reached a record figure being some £33,000 higher than the previous record established in May.

Facing import cuts during the second half of the year, importers in India evidently stepped up their drug purchases, the value of those goods exported to India in July being £403,740 against an average monthly rate for January-June of £262,000. Purchases by Australia, which was the second best market, were down to £270,850 or only £23,000 more than those of New Zealand but most European countries took considerably more than in the previous July.

EXPORTS				VALUE
Drugs, medicines, medicinal preparations (total)	...	...	...	£
Vitamins	...	...	...	3,587,159
Penicillin salts	...	...	...	363,300
Penicillin injections	...	...	...	187,929
Penicillin tablets, ointments, etc.	...	...	...	50,851
Antibiotics other than penicillin	...	...	...	45,301
Quinine	...	...	...	492,277
Alkaloids, excluding quinine	...	...	...	13,899
Aspirin	...	...	...	96,641
Antihistamines	...	...	...	93,693
Antipaludics	...	...	...	43,841
Barbiturates	...	...	...	80,329
Liver extracts	...	...	...	46,265
Ointments and liniments	...	...	...	19,368
Insulin	...	...	...	87,963
Sulphonamides	...	...	...	32,727
Proprietary medicines	...	...	...	105,667
Other medicines, unclassified	...	...	...	1,048,653
Glycerin	...	...	...	757,198
Acetone	...	...	...	86,725
Citric acid	...	...	...	18,851
Salicylates	...	...	...	31,940
Perfumery and toilet preparations	...	...	...	26,242
Lipstick, face powder, etc.	...	...	...	258,715
Dentifrices	...	...	...	152,512
Toilet soaps	...	...	...	235,539
Synthetic detergents	...	...	...	637,347
IMPORTS				£
Vitamins	...	...	...	81,900
Antibiotics	...	...	...	150,036
Alkaloids	...	...	...	30,204
Proprietary medicines	...	...	...	84,310
Unclassified medicines	...	...	...	289,019
Borax	...	...	...	74,824
Iodine	...	...	...	9,716
Menthol	...	...	...	32,025
Essential oils	...	...	...
Bergamot	...	...	...	10,896
Citronella	...	...	...	32,652
Clove	...	...	...	6,306
Geranium	...	...	...	29,728
Lavender	...	...	...	18,725
Lemon	...	...	...	25,904
Orange	...	...	...	13,215
Peppermint	...	...	...	61,643
Unclassified	...	...	...	204,938

DRUG BOTTLE FINDS AT BRISTOL

What archæologists sifted out from bombed sites

LAURENCE DOPSON

THIS week-end, as on most others, two enthusiastic young men, Messrs. K. Marochan and K. Reed, will probably be found digging on a bombed site in Bristol. They may find, as they did the other week, an early nineteenth-century moulded chemist's bottle. Or they may discover, as they did at Failand, a prehistoric neolithic site. For the past four years Marochan and Reed, devoting their spare time at lunch hours and week-ends, have excavated all the bombed sites in the central area of Bristol on which rebuilding is taking place. Among the great variety, both in type and date, of historic objects which they have saved a considerable number have been of pharmaceutical interest.

Of the many glass medicine phials they have unearthed most, unfortunately, are in a damaged condition. But at St. James Barton, near the Bristol Royal Infirmary, they

great deal of dispensing. When John died he left his drugs and "valuable recipes" to Ann, who, says Dr. G. Munro Smith in *A History of Bristol Royal Infirmary*, carried on the business with great success and obtained a reputation for the cure of certain diseases. John and Ann were Quakers. According to the *Bristol Gazette* (September 6, 1780) John obtained the degree of M.D. at Aberdeen, which could at that time be secured *in absentia*. When John Bingham Borlase (apothecary at the Hospital) who kept pointers in the Elaboratory (dispensary) and played cards with the apprentices, became ill with typhus fever, he called in Dr. Abraham Ludlow. That gentleman had incurred the displeasure of his colleagues on the staff of the Royal Infirmary by obtaining that same diploma and thereafter practising both as a surgeon and physician and as an apothecary.

Dr. Ludlow wrote a prescription for his patient, and the physicians "forbad at their peril all the Apprentices and Assistants from dispensing it." Mr. Till Adams, who had called to see Borlase, thereupon himself took the prescription to the dispensary. The irascible Dr. James Plomer, who was waiting there, tossed the prescription out of the room "and Mr. Till Adams nearly shared the same fate."

The physicians refused to allow anything to go from the hospital dispensary to the sick man, so Till Adams made up at his Union Street shop all the prescriptions which Dr. Ludlow

ordered. Then, when the patient had recovered, he sent in his bill for £11 10s. to the Infirmary Committee. After turbulent discussion it was decided that the bill should be paid. Upon receiving the money Till Adams immediately wrote a letter to his "Esteemed Friends" on the Board, and presented this £11 10s. to the Infirmary as a benefaction.

A Fine Shop with Large Jars

To the list of Wine Street pharmacists must be added the name of Mr. Jackson, according to Dr. Smith "in 1795 the most notable dispenser in the city." Jackson lived at No. 23. "He was one of the first in Bristol to open 'a fine shop,' with large glass jars in the window. He made his fortune, and left his business in the hands of Joseph Talbot, who also did very well." Another pharmaceutical establishment in the area mentioned by Dr. Smith is that of Edward Tucker, who had a "medicinal dispensary" in Union Street in 1784.

In Rosemary Street Marochin and Reed found six more phials and many sherds. At Radcliff Street they came upon



Apothecaries' phials of the seventeenth and eighteenth centuries, found on Bristol bombed sites.

brought to light several complete apothecary's phials of the seventeenth and eighteenth centuries. That those fragile objects, equivalent to the modern medicine bottle but more elegant, with their wide mouths for stoppers, should remain unbroken through the centuries is remarkable. It is, moreover, known with fair certainty from what shops they came. Matthews' *Bristol Directory for 1793-94* mentions two apothecaries in the St. James Barton area—the partnership Blagden & Dew, and James Date. Thomas Blagden was one of the six "leading apothecaries of the city" who, together with the house visitors of the Royal Infirmary, in 1777 inspected the apothecary's shop at the hospital and its arrangements. The investigation had been requested by the Hospital's apothecary, Thomas Elmes, after an anonymous attack on his department had appeared in the local newspaper *Felix Farley's Journal*. Blagden's partner James Dew is known to have served an apprenticeship to Dr. Thomas Baynton, who himself had served as apprentice to Thomas Elmes when the latter was apothecary at the Infirmary from 1775 until his death in 1777. Looking back on his apprenticeship days, Dew recalled that at Dr. Baynton's house "the pump-handle was troubled more at meals than the beer-cock," a sign in those times either of great penury or of meanness.

Records of Druggists

At Wine Street, in the centre of Bristol, the two excavators found a few complete bottles and many fragments. The *Directory* already mentioned lists several druggists whose businesses were within the area: in Wine Street Godwin & Innes and Sheddon & Co.; in Union Street Ann Tilladams; and in Broad Street James Edwards and Samuel Williams. The presence among them of a woman at that date is interesting, and one would like to think that some of the bottles illustrated were handled by her. Certainly she and her husband, John Tilladams or Till Adams, did a



Moulded glass bottles of the early nineteenth century.

an early nineteenth-century bottle with a London name and address: Hyde, 61 Fleet Street, London. It is the right-hand bottle in the second illustration. The next bottle, found only recently, bears the words OLD SOL.

Although the Hyde bottle is of a type that was at first believed to belong to a druggist, *Robson's Commercial Directory of London*, 1840, records that 61 Fleet Street was occupied by G. & F. Hyde, stationers and sealing-wax merchants. It may therefore be an ink bottle. Indeed, on the site of the find more bottles have come to light, including stone ink jars of the late nineteenth century. "The site would appear," says Mr. Marochin, "to have been used especially for the dumping of ink bottles." Unmistakably pharmaceutical, however, are the drug pots of Bristol Delft, of which a number have also been found on sites in the streets previously mentioned.

"We began this work about six years ago, working in our spare time, mainly on prehistory," says Mr. Marochin. "To date we have discovered the neolithic site at Failand, near Bristol [already referred to]. It took us three years to complete the survey of it. Recently we found what we think may turn out to be a prehistoric burial mound. We are also engaged in a survey of Roman pottery found by us in the Failand area in connection with a suspected Roman road discovered by members of the Clevedon Archaeological Society.

"With the advent of extensive rebuilding in the centre of Bristol, we decided that those sites needed watching for relics of the past. We got in touch with workmen and site foremen, who kept anything of interest they found. We also

did minor excavations of our own, mainly on Saturdays and Sunday mornings, with the result that we have had quite a few interesting finds, including a large fourteenth-century jug and recently a very interesting jug of Somerset manu-



Bristol Delft apothecaries' drug pots, late seventeenth century.

facture. We have also discovered several of the old wooden waterpipes used in the ancient water supply of the city, and we had the good fortune to find an ancient wooden pump for a well. That is now in the Bristol Waterworks Museum.

"About four or five thousand clay pipes dating from the late sixteenth to the nineteenth century have been found, which leads us to make a revision of Bristol clay-pipe manufactories, originally published by the *Gloucestershire Archaeological Magazine*."

Earlier this year a special exhibition at the City Museum of some of the finds, including those of pharmaceutical interest, aroused a widespread interest, and in connection with it an appeal was made for people to volunteer to assist in excavations. Under the name "Bristol Archaeological Committee," about thirty men and women are now engaged on searching areas of the city for objects of historical value, and anything that is found goes to the City Museum.

SOME BRISTOL PHARMACIES

A glance at a few representative examples of the many types of retail pharmaceutical business to be found in the city at which this year's British Pharmaceutical Conference meeting is being held.

THE Pharmaceutical Society's current register of premises lists 178 pharmacies in Bristol—far too many for a detailed catalogue in these columns. The pharmacies selected for mention have been chosen—with local help—as being reasonably representative of the varying businesses to be found in the city. As there are no less than fifteen branches of Boots, Ltd., in Bristol, no picture would be quite representative without one of them. Of the other large "national" multiples the city contains no branch, but it has its own, local to the city and district, in Hodders, Ltd., and smaller Strode, Cosh & Penfold, Ltd. From each of which a branch has been chosen. "Private" pharmacies still, of course, make up the overwhelming majority of the total, and it will be seen that Bristol has its quota of pharmacies of character.

The Arch House Pharmacy ("Elliotts"), Victoria Square, Clifton, is owned and conducted by Mr. Charles Hatley, an Oxonian. The premises are remarkable in that a right of way, for which the City Corporation pays an annual rental of one shilling to the proprietor, passes through them; it is flanked by the display windows of the pharmacy. The shop itself has a lofty ceiling, spacious dispensary and stockrooms, and unusual "pillared" mahogany counter showcases. A fact of some interest is that the house immediately adjacent to the Arch House premises (in Victoria Square) was for some years the home of the cricketer, W. G. Grace, then in his boyhood. It is said that he and his young friends used a tree, which still stands in the corner of the garden, as a wicket.

Butler's Pharmacy in Old Market Street, owned and still conducted by eighty-one-year-old Mr. F. H. Long, with Mr.

Donne as manager, is scheduled for preservation by the Bristol Preservation Society. Not all of its interest lies in its handsome bowed front. Within the shop are arched recesses one of which houses a collection of stone syrup and ointment jars. On a glass fanlight at the rear of the shop may be seen the diamond-cut signatures of former employees. Behind it is a 200-year-old two-storied warehouse with such unusual "properties" as a forged iron weigher for bulk containers, a press for quassia, and the like.

The pharmacy of Buxton & Grant, Ltd., on Black Boy Hill (continuing Whiteladies Road) is under the control of Mr. T. L. Phillips, who has been associated with it since 1914. Pride of the pharmacy is a large range of handsome shop rounds, which betray their Austrian origin with one or two misspellings, such as Tinct, Cramer. A large proportion of the business is still with "booking" customers, and private prescriptions account for a high percentage of the dispensing turnover. The Black Boy inn, which once stood athwart the road a little below the shop, and facing down Whiteladies Road, has been adopted as a sort of trade mark of the pharmacy, being depicted, for example, on its wrapping papers, though, of course, the inn had been demolished long before the shop was built.

A Specious "Royalty"

Located where Cotham Hill turns off Whiteladies Road, the pharmacy of Mr. K. J. Adams (immediate past-chairman of the Bristol Branch of the Society) occupies one section of a former "twin" toll-house that once exacted tribute from users of those thoroughfares. The intriguing "kings" above the shop's fascia hint falsely at a mediæval origin for



Exterior and interior views of the Arch Pharmacy, Clifton.
At right, the pharmacies of Kenneth J. Adams, Whiteladies Road;
E. C. Lampard, Baldwin Street; T. Buxton & Co., Ltd., Queens Road;
and Strode, Cosh & Penfold, Ltd., Broadmead.

A few of the pharmacies of BRISTOL



Above, the Kingswood branch of Bristol Co-operative Chemists, Ltd.; the Queens Road branch of Boots, Ltd.; and the central (High Street) branch of Hodders, Ltd. Below and at right, the pharmacies of Buxton & Grant, Ltd., Black Boy Hill; and Victor Latty, Ltd., Temple Gate.



Below, exterior and interior views of the old-established Market Street pharmacy of Butler & Co., Ltd.



the premises. They were, in fact, put there, probably as a rebus on his surname, by a former occupant, Mr. King. A feature of the shop is its hinged fixtures serving both as window backs and, on the shop side, as shelves for stock. Their height was determined by the instruction given to the shopfitter about sixty years ago that they must be low enough to enable the proprietor to see above them the carriages of his customers. The counter and remainder of the fixtures are new—installed so recently as October 1956. Despite its generous display-windows the shop itself is so restricted in area that, to allow room for customers, the dispensary had to be moved upstairs, and prescriptions are sent up in a hand-operated goods lift. Mr. Adams has been proprietor of the pharmacy for twenty-one years.

With its glass and metal canopy over the pavement the last remaining section of what once ran the length of the parade of shops that make an "island" with Triangle South and Triangle West, the pharmaceutical business of T. Buxton & Co., Ltd., has presented a distinguished frontage to Queen's Road for forty years. Situated as it is about midway between University Tower and the Royal West of England Academy, but on the opposite side of the road, the pharmacy will be seen by most Conference visitors during their stay in the city. The business has at least two claims to distinction. It has a regular *clientèle* for high-quality French perfumes, to one or other of which a complete display window is usually given over, and it incorporates the homeopathic business of Clark & Wheeler—until several years ago carried on a few doors down the street. Remarkably enough that is a growing department of the business. Principal director of the company is Mr. C. F. Stuart-Crump, who acquired the business six years ago.

An Impressive Modern Pharmacy

The impressively modern and compact pharmacy carried on by Mr. E. C. Lampard at 39 Baldwin Street is entirely new. Opened in October 1956, it occupies part of a large shop and office building re-erected on ground laid bare by enemy action in 1940. The business was transferred to the new premises from a smaller shop, only a few yards away, and in the new premises he is able to offer his customers greatly improved amenities and service.

At Temple Gate, close to Bristol's main railway station at Temple Meads, and in premises that have housed a pharmacy for over a century, is the main shop of Victor Latty, Ltd., a business with branches at Colston Street and Knowle. "Chief" of the business is Mr. Donald G. Cooper, M.P.S., who took over in 1926 and who serves his fellow pharmacists in Bristol not only as secretary of the Pharmaceutical Committee but also as proprietor of the Temple Photo Service. Those modern developing and printing works have a capacity of 3,000 spoons a day, and serve 150 chemists and photographic dealers in Bristol and the surrounding districts. At Temple Gate the shop area has been continuously enlarged during the past thirty years, and recently the pharmacy was lengthened by moving back the dispensary and making room for a cosmetic department comparable with the two other departments (drugs and photographic) which have contributed approximately equal shares to turnover on the retail side.

Consequent upon the development of the area as the main shopping centre of Bristol, the Broadmead pharmacy of Strode, Cosh & Penfold, Ltd., replaces the company's old premises which had housed a pharmacy continuously from 1809. The new shop makes a complete break with tradition. It has a main drug and photographic counter running along one side. Facing it is a cosmetic section with a separate "ladies' department" in the far corner of the shop. Stairs at the end of the ground floor lead to a stationery department on the first floor, and the dispensary is also located above, prescriptions being sent up by lift from the main counter. Eight other pharmacies function under the company's name, which has been well known in the city for many years.

No visitor to Bristol will have been long there without seeing one of the forty-one branches (thirty in the city of Hoddors, Ltd., Bristol's own "multiple," established in 1846. The branch shown in these pages is the large central High Street shop, managed by Mr. G. B. Somerset, M.P.S. The pharmacy is licensed under the Therapeutic Substance Act and enjoys a good dispensing and heavy counter trade. The upper part of the premises is used as a *dépôt* (under the supervision of Mr. F. Sweeting, F.P.S.) for the supply of the "ethical" drugs and preparations required by all the other branches. Messrs. Hoddors are understood to be putting forward to Bristol Corporation a scheme for the building of a new headquarters building to cost about £75,000. The site, which is in Thomes Street, will provide 30,000 sq. ft. of office and warehouse space on two floors.

Rebuilt Premises

Boots Cash Chemists, Ltd., have fifteen branches in Bristol, of which one, the rebuilt premises in Queen's Road, is illustrated overleaf. The original shop on the site was, in fact, the first Boots shop in Bristol: it was opened on February 15, 1896. It was also one of three branches of the company in the city to be destroyed by bombing during the 1939-45 war. Conference members of Boots Booklover Library should note that the local branch library is in separate premises at College Green, a few hundred yards away and on the opposite (north-east) side of the thoroughfare. The manager of the pharmacy is Mr. L. C. Phillips.

Distributed around the city, in mainly residential areas are the four pharmacies conducted by Bristol Co-operative Chemists, Ltd., the one illustrated being the recently modernised Kingswood Branch. The Co-operative pharmacy and ophthalmic services in Bristol are superintended by Mr. H. Long, M.P.S., D.Opt., a personality well known in both pharmacy and optical circles, who is also a member of council of the Institute of Optical Science. In the past few years the optical side has become the more prominent of those activities. While retaining the administrative responsibility for the joint services, Mr. Long now personally conducts the ophthalmic practice, which is operated in the central premises of the Bristol Co-operative Society, Ltd. at Castle Green.

ECHOES OF THE PAST CAUSES OF PLAGUE

From "A Short History of Social Life in England," by M. B. Syngé, F.R.Hist.S. (Hodder & Stoughton, London 1906).

Circa 1509-47.

STRONG indeed must our forefathers have been at this time to have survived the insanitary conditions of their lives. The country during the sixteenth century was hardly ever free from outbreaks of the plague and "sweating sickness," partly owing to the "filthiness of the streets and the sluttishness within doors," says Erasmus, writing after his first visit to this country. "The floors are commonly of clay, strewn with rushes, so renewed that the substratum may be unmolested for twenty years, with an ancient collection of beer, grease, fragments, bones, spittle, and everything that is nasty." This horrid mess was utilised by the sixteenth-century doctors, who professed to cure what they diagnosed as a "stitch in the side" by taking a well trodden clod of this refuse, making it into a cake with vinegar, well toasted, and clapping it on to the side. Other old prescriptions show that medicine had made very little progress.

"If a man were become verie weake and feable by reason of a longe sickness, even that he seemeth to be consumed, nether can recover, then take twenty olde cockes, dresse and dighte them as though they should be eaten, seth them in the thyrd part of a tonne of water, stampe them in a mortar, so that the bones be all to brused, make a bath therewyth and let hym bathe therein." Yet more inadequate are some other prescriptions. For headache, the patient is ordered to roll up and down on his tongue while fasting, a mixture of pepper and mustard about the size of a bean, in order to draw the evil humours out of the head into the mouth!

INSULIN AND DIABETES MELLITUS

S. J. HOPKINS, F.P.S.

DISCOVERIES and the practical applications of them, although successive steps, are often widely separated in time. The gap between the discovery of penicillin and its therapeutic use, for example, can be partly explained by the temporary obsession of both investigators and clinicians with the potentialities of the sulphonamides. In the case of insulin—the internal secretion of the pancreas—the delays were due to different causes. Although the clinical aspects of diabetes mellitus have been known for centuries, the relationship between the disease and the pancreas was not demonstrated conclusively until 1890. It was then assumed that the pancreas secreted some substance that controlled the utilisation of carbohydrate. Blithely confident of eventually discovering what that was, Meyer referred to the hypothetical substance as “insuline,” but attempts to extract it from the pancreas were uniformly and repeatedly unsuccessful. It had, of course, long been known that the pancreas consists of two types of tissue. The main part, the acinous tissue, secretes the pancreatic enzymes, which reach the intestines by the pancreatic duct and are concerned with the digestive processes. Small groups of other cells, known as the islets of Langerhans, are also present in the pancreas, and in proved cases of diabetes mellitus those groups of cells frequently show pathological changes. A possible connection between those “islets” and “insuline” was postulated, and with the development of biochemistry, and a wider realisation of the action of enzymes, it began to be realised that the unknown carbohydrate factor of the pancreas was probably being broken down by the pancreatic enzymes during the extraction process.

The difficulty of suppressing inactivation by the enzymes appeared formidable at the time, but Banting and Best solved the problem of extracting the carbohydrate factor, now known as insulin, in 1922. Those workers reasoned that, if the pancreatic duct were ligated (tied), thus preventing the flow of pancreatic juice, the enzyme-forming tissues would eventually degenerate, and thus permit the extraction of insulin in an active form from the other cells of the pancreas. That hypothesis was soon confirmed by practical experiment, and further proof was afforded by the extraction of insulin from the foetal pancreas of cattle, in which the enzyme-forming tissues have not developed to an active state.

Extraction

Once the nature of the extraction difficulties was appreciated, methods were soon devised for the isolation of insulin from mammalian pancreas on a commercial scale. Many improvements in the extraction processes have since been made, resulting in increased yields of greater purity. Basically, some process such as the following is satisfactory. The fresh or frozen pancreas is minced, and extracted with alcohol acidified to pH 3-3.5. That alcoholic extract, which contains insulin, protein, fat, etc., is evaporated under reduced pressure, when the fat separates and is removed. The insulin present is then precipitated from solution by the addition of alcohol or acetone. Alternatively the insulin may be precipitated as the picrate by using trinitrophenol. The precipitate obtained by either method is converted into the hydrochloride, and is reprecipitated by adjusting the

pH of the solution to that of the iso-electric point of insulin (pH 5.2). Further purification by crystallisation from a buffered solution containing traces of zinc chloride eventually yields a crystalline insulin with an activity of not less than 22 units per mgm. That is redissolved in water containing about 1.5 per cent. of glycerin, and sufficient hydrochloric acid to adjust the pH of the product to 3-3.5. The final injection may contain 20, 40, or 80 units of insulin per c.c.

Chemistry

Insulin, although it has a complex structure, is still one of the simplest proteins. For a long time it was thought to have a molecular weight of about 35,000, but with the introduction of newer methods of fractionation, such as paper chromatography and high-voltage iontophoresis, a clearer picture of the structure was obtained. From the brilliant work of Sanger it is now known that insulin has a molecular weight of 5,733, and contains 777 atoms in the molecule, giving a formula of $C_{254}H_{377}O_{75}N_{65}S_6$.

The molecule consists essentially of two polypeptide chains, which are connected together by the disulphide bridges of three separate cystine residues. No less than fifty-one amino acids are attached to the two chains, and they include arginine, threonine, histidine, asparagine, alanine and serine. Many of those amino acids occur several times at different points on the polypeptide chains, but one (histidine) is present at a single point only.

The molecule appears to function as a whole, so that quite small changes in structure can bring about inactivation. Thus the concept of some specifically active groups in the insulin molecule has had to be abandoned. The importance of the intact molecule is probably bound up with spatial arrangement, which raises fundamental problems of the relationships between form and activity.

Although the structural formula gives a molecular weight of about 6,000, the physiologically active form of insulin is probably a polymer. Thus, although insulin cannot be obtained in a crystalline form unless some zinc is present, the metal is not an essential part of the molecule. When present, it is possibly combined with histidine, giving rise to a complex with a molecular weight of about 36,000. Those polymers may account for the higher molecular weights recorded by earlier investigators.

Mode of Action

Carbohydrate metabolism is a complex process. Although insulin plays a major part in it, the exact mode of action is still imperfectly understood. Briefly, it can be said that the carbohydrate in the food, after conversion into glucose, may be stored as glycogen, converted to fat, or oxidised immediately as a source of energy. The first step in any of those processes is the conversion of glucose to its hexaphosphate by the enzyme hexokinase. That initial process is of such fundamental importance that it is generally considered to be the dominant factor in determining the rate of glucose utilisation. It is at that point that insulin is thought to act: either as an essential factor in oxidative phosphorylation, or the transport of glucose into the cell before phosphorylation occurs. Since phosphorylation is inhibited by certain

adrenal hormones, insulin may also act by preventing the inhibition. When the inter-relationships of carbohydrate, fat and protein metabolism are considered, and the influence of the adrenocortical steroids, it is perhaps hardly surprising that there has yet to be devised one co-ordinating theory, able to reconcile all the experimental findings.

Whatever part or parts insulin plays in the complex process of glucose utilisation, the required amount is released by the pancreas according to physiological needs. The system is an extremely flexible one, and provides a twenty-four-hour service that, without difficulty, can cope with demands at peak periods following meals yet not cause too low a fall in blood sugar at other times.

That remarkable balance is achieved with a daily release of as little as 20 units of insulin, and the delicate balance is probably a function of the concentration of glucose in the blood flowing through the pancreas at any one time.

Results of Insulin Deficiency

In diabetes, the mechanism of insulin production is disturbed. The output decreases, and as a result the oxidation of glucose as a source of energy, and its conversion to glycogen for storage are impaired. Absorption of glucose still continues, and eventually it begins to accumulate in the blood. As soon as the capacity of the kidneys to retain circulatory glucose is exceeded, the excess "spills" over and is excreted in the urine, where it may be detected by Benedict's solution in the ordinary way. The glucose thus excreted acts as a diuretic, eventually leading to a polyuria, hence also to an increased thirst to compensate for the loss of fluid.

The reduction of insulin production means that glucose is largely denied to the body as a source of energy, and as a result large amounts of fat are mobilised and used instead. The end-products of fat metabolism in those circumstances are compounds generally referred to as ketone bodies. The production of those ketones exceeds the power of the body to oxidise them further, and they appear in the urine mainly as acetoacetic acid and β -hydroxybutyric acid.

Other results of insulin deficiency include an increased urinary excretion of phosphate, sulphate, nitrogen, sodium, potassium and calcium. The electrolyte balance of the body is therefore seriously disturbed, and in time a metabolic acidosis may develop. At that stage vomiting is common, leading to a further loss of electrolytes, and in severe cases a diabetic acidosis of that kind may develop into a coma.

Treatment of Diabetes

The injection of insulin, given at a relatively early stage of the disease, results in a rapid change. The blood sugar falls rapidly as the depleted glycogen reserves are restored, the ketone bodies are oxidised, and the thirst and polyuria are relieved as glucose disappears from the urine. The initial treatment of severe diabetes is on similar lines, but may require considerable supportive therapy.

It is well known, however, that many patients with only mild symptoms of diabetes can be treated by dieting alone, mainly by restricting the carbohydrate intake. Restriction should not be carried too far. Some carbohydrate is essential for satisfactory nutrition and, in all mild cases of diabetes, some residual activity of the islets of Langerhans remains. That residual activity is fostered and not over-powered as might be anticipated, by a moderate carbohydrate intake.

The simple dietary measures described are not suitable for young diabetics, and are quite insufficient for any severe case. For those patients injections of insulin are essential so soon as the condition is diagnosed.

Varieties of Insulin

Since the original introduction of insulin a number of modifications have been prepared. Most of them have been aimed at extending the time of action of insulin, and thus simulating more closely the action of the natural hormone. No injection can compare in effect with the

action of the natural hormone, which is released entirely according to physiological needs, but a system of carefully timed meals, taken in association with injections of a suitable type of insulin, enables most diabetics to lead a normal, active life. The following varieties of insulin are available.

Soluble Insulin

Soluble insulin is an acidified (pH 3-3.5), aqueous solution of crystalline insulin. When injected subcutaneously it is rapidly absorbed, and the effect reaches a peak in about four hours, after which the activity rapidly declines. The effect is comparable to the normal insulin response which follows a meal, and it follows that, in a diabetic, an injection of soluble insulin is necessary before every meal. The introduction of the longer-acting insulins has reduced the routine use of soluble insulin, but it still has certain advantages. For example its effects are prompt and predictable, and those properties make it the insulin of choice in the initial treatment of severe diabetes, or the emergency of diabetic coma. In such cases the aim of treatment is to bring the patient under control as soon as possible, and flexibility of dose is essential. Soluble insulin is also useful in the treatment of patients who cannot grasp the intricacies of a scheme of carefully timed injections related to adjusted diets. Such patients may usually be relied upon to remember the necessity of an injection before a meal, and soluble insulin becomes for them the most suitable preparation.

In severe diabetics the brief action of soluble insulin increases the difficulties of securing adequate control. That disadvantage was recognised soon after the discovery of insulin, and attempts were made to extend its action. Conventional methods, such as the addition of adrenaline, suspension in oil, etc., proved unsatisfactory, and before long it was realised that a new approach to the problem was necessary.

Insulin is a protein and, like others, dissolves in both acids and alkalis. The degree of solubility varies with the pH of the solvent, and the point of minimum solubility is termed the isoelectric point. For soluble insulin that point occurs at pH 5.3, hence this form of insulin is readily soluble in the body fluids (pH 7.3).

The isoelectric point may be altered by other substances, and in 1936 Hagedorn and his associates devised a new method of extending the action of insulin by combination with protamine derived from fish sperm.

Protamines are simple proteins with a diamino acid structure. With soluble insulin a complex is formed with an isoelectric point at pH 7.3, and such a complex is relatively insoluble in body tissues, and is but slowly absorbed. The action of the insulin component is therefore prolonged.

The complex was the basis of the old "retard" or "delay" insulin. It was admittedly an advance, but the product had several disadvantages. A two-solution product, it required mixing by the patient before use, and tended to clump. The use of protamine in that way was none the less valuable, as it led directly to the introduction of protamine zinc insulin.

Protamine Zinc Insulin

In 1934 Scott had shown that soluble insulin could not be obtained in a crystalline form unless some proportion of zinc were present. Later work indicated that, whilst small amounts of zinc had no effect on the period of action, larger amounts, up to 1,000 mgm. per 1,000 units of insulin, had a marked effect in prolonging the action.

In practice, however, those high-zinc insulins produced a considerable local reaction when injected, and were too irritant to be used therapeutically.

When similar experiments were carried out with protamine insulin, Fisher and Scott were able to show that a prolonged action could be obtained with but small traces of zinc. Furthermore the zinc also improved the stability of the preparation, which soon achieved wide popularity.

Injection of protamine zinc insulin is a buffered aqueous suspension of that modification of insulin. It contains 0.2 mgm. of zinc per 100 units of insulin, and has properties very different from those of earlier modifications of insulin, as the onset of action is slow, not beginning until about six hours after injection. The peak of activity is reached in about twelve hours, but may persist for a whole day or more.

That prolonged action marked a great advance in diabetic therapy, as for the first time the ideal of a single daily injection appeared to be within reach. With suitable adjustments in the timing of meals, many diabetics could be stabilised on a single morning injection of protamine zinc insulin.

More severe diabetics require a product with a more rapid effect, and that may be achieved by a mixed injection, prepared immediately before use, of soluble and protamine zinc insulins. The mixed product gives adequate insulin cover before the full effects of the long-acting component are exerted.

With protamine zinc insulin it is sometimes found that the activity, although prolonged, is towards the end, insufficient to prevent some glucose from appearing in the urine in the morning following injection. At one time considerable importance was attached to that slight glycosuria, and multiple injections of insulin were used to prevent it. A sugar-free urine is, of course, the ideal to be achieved, but provided the patient keeps well, and has no other symptoms, many clinicians now consider that that transient glycosuria may be disregarded. From the patient's point of view a more elaborate dietary regimen and injection scheme is a high price to pay for a completely sugar-free urine.

Globin Insulin

The action of protamine zinc insulin is too slow and prolonged for some patients, but a product that meets some of the difficulties is globin insulin. In that preparation insulin is combined with zinc and globin (the protein of hæmoglobin). The complex has the advantage of being soluble in water, and injection of globin insulin is therefore presented as a clear solution. Such a soluble product permits accuracy of dosage, and eliminates the errors inherent in measuring doses of a suspension such as injection of protamine zinc insulin.

The action is reasonably prompt, coming on within two hours of injection, rising to a maximum in six to twelve hours, and disappearing after twenty-four hours. By a suitable rearrangement of meals, and the distribution of carbohydrate in them, the risk of hypoglycaemia during the night is reduced to small proportions, and for many mild diabetics globin insulin has proved to be one of the most satisfactory preparations available. It is also useful for the occasional patient who reacts to protamine zinc insulin, as such a patient may be transferred without difficulty to globin insulin.

From the theoretical standpoint, this insulin modification has much to recommend it, yet for some reason it has never enjoyed any great popularity in this country, comparable with the high reputation it has long held elsewhere.

Isophane Insulin (N.P.H. 50)

Reference is made to isophane insulin principally for the sake of completeness, as it is rarely prescribed in Great Britain. It is a modified protamine zinc insulin containing a smaller amount of protamine, and its action is essentially that of a longer-acting globin insulin. It is not suitable for children, or when a quick-acting preparation is needed. The name N.P.H. 50 indicates its composition and origin. N. refers to the neutral reaction of the injection, P. indicates protamine; H. is derived from Hagedorn, the originator of the product, and the 50 denotes that every 100 units of insulin is associated with 0.50 mgm. of protamine. Thus it has a more definite composition than protamine zinc insulin, whose protamine content may vary from 1 to 1.5 mgm. per 100 units of insulin.

Lente Insulins

The search for the ideal long-acting insulin continues, and more recently a fresh approach to the problem has been the introduction of the "lente" insulins.

Reference has already been made to the influence of zinc and the significance of pH in extending the action of insulin. To maintain the pH of insulin preparations, sodium phosphate buffers are used. Their almost universal use in buffering insulin products is hardly surprising since they have been used in many other biochemical preparations.

Unfortunately the widespread use of phosphate buffers disguised for many years the fact that zinc insulin preparations may be prepared without any protamine at all, provided that phosphates or citrates are absent. Once that essential fact was appreciated sodium acetate buffers were used, and further work soon showed that ordinary soluble insulin, with a suitable proportion of zinc, formed an insoluble complex without the addition of any foreign protein.

That in itself was a distinct advance, which was further extended by the discovery that the physical state of the insulin complex also plays an important part in its effect. Under conditions of rapid precipitation an amorphous product is obtained, but crystals are formed if precipitation is allowed to proceed slowly. Those zinc-insulin crystals, if suspended in water and injected, have an effect resembling that of protamine zinc insulin, but with a longer period of action. The amorphous product, on the other hand, is absorbed so rapidly that its action may almost be compared with that of soluble insulin.

By suitably mixing the two types of product, great variations in the degree of activity are made possible, and the ideal of a single daily injection of insulin is extended to cover the great majority of diabetics.

The suspension of amorphous insulin was introduced into therapeutics as "semi-lente" insulin, now designated by the official name insulin zinc suspension (amorphous). The suspension has an activity extending over twelve hours. A similar suspension of the crystalline, long-acting form of insulin is referred to as "ultra-lente" or insulin zinc suspension (crystalline). A mixture of the two types, comprising 30 per cent. of semi-lente and 70 per cent. of ultra-lente, is referred to as "lente" insulin, or insulin zinc suspension. When considering the use of those insulins one must remember that patients with the same apparent degree of diabetes may react differently to similar doses of insulin. The response is a product of two factors, the drug and the patient, and the range of action of any insulin may only be stated in general terms. At the same time it may be said that the great majority of insulin-taking diabetics fall into a definite group, and may be stabilised easily on a single daily dose of lente insulin. If the patient is one of the relative few for whom lente insulin is unsuitable, the proportions of amorphous and crystalline insulin may be modified, within wide limits, to suit the particular individual. The three forms of lente insulin are completely miscible with each other without loss or change of activity, and the mixture is adjusted easily to proportions that produce a reasonably stable blood-sugar level. That mixing of insulins naturally applies solely to the lente insulins. They cannot be mixed with either soluble or protamine-zinc insulins without loss of their essential characteristics.

The main field of application of those insulins is in the treatment of the new diabetic subject. Long-standing diabetics, if well stabilised on the older types of insulin, are best left alone, as transfer may be a little difficult and an increased dose may be required.

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TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are in many instances augmented before wholesale dealers receive the goods into stock. Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

LONDON, AUGUST 28: Demand for CRUDE DRUGS is still at a low level and little improvement is expected before the middle of September. In spite of the dull conditions, however, it was noticeable that a few commodities tended to be dearer as a result of tight supplies.

QUILLAIA was up 15s. per cwt. while QUASSIA was from 5s. to 7s. 6d. dearer according to holder. Fractionally dearer also was ORANGE PEEL from all sources. There appeared to be a wider range of Alexandria SENNA PODS but Tinnevely manufacturing pods were scarce. Apart from the Russian variety, natural LIQUORICE ROOT was difficult to locate. A certain amount of speculative dealing in new-crop African GINGER caused the spot rate to advance 5s. a cwt., while Jamaica is now believed cleared at origin. IPECACUANHA continued a difficult market and Cape ALOES remained weak at origin. Lower per lb. were LOBELIA HERB (down sixpence) and WITCH HAZEL LEAVES (down three-pence). The first of the import licences for HONEY originating in the dollar areas have been received by applicants. It is expected that the extra amount of honey available as a result of the licences (valid till June 1958) will make little difference to the market because price and the established quota are limiting factors.

The French LAVENDER crop is reported to be a good one this year and trade sources believe that some easing of the high prices of the oil can be expected, meanwhile spot supplies are quoted lower as well as those of LAVANDIN. A feature of the ESSENTIAL OIL market was the sudden rise of BERGAMOT which was quoted about 85s. per lb. against 73s. recently. Spot quotations for Chinese ANISE were nine-pence per lb. under the c.i.f. position. Imported CARAWAY was slightly easier but TANGERINE was dearer by 5s. to 7s. 6d. per lb. and Turkish OTTO OF ROSE by £25 per kilo.

The price of POTASSIUM PERMANGANATE is being raised by one manufacturer on August 30. The increase amounts to three farthings a lb. for the B.P. grade and 7s. a cwt. for the technical. The last change, also an increase, occurred in January.

EXCHANGE RATES ON LONDON

At the opening on Wednesday

*Alexandria	Piastres to £	97½-97¾
Amsterdam	Florins to £	10.56-10.72
*Bombay	Shillings to rupee	1/5½-1/6½
Brussels	Francs to £	138.95-141.05
Copenhagen	Kronor to £	19.19½-19.48½
Dutch West Indies	Florins to £	5.26-5.29
*Hong Kong	Shillings to \$	1/2½-1/2¾
*Karachi	Shillings to rupee	1/5½-1/6½
Lisbon	Escudos to £	79.90-81.10
*Montreal	Dollars to £	2.64½-2.65
New York	Dollars to £	2.78-2.82
Oslo	Kronor to £	19.85-20.15
*Paris	Francs to £	1,167.18-1,184.82
Stockholm	Kronor to £	14.37½-14.59½
*Singapore	Shillings to \$	2/3½-2/4
Zurich	Francs to £	12.15½-12.33½
*Free market rates; remainder Bank of England. Bank rate: 5 per cent. from February 7.		

Pharmaceutical Chemicals

ADRENALINE. — Rates for synthetic B.P. are from 1s. 1d. (500-gm. lots) to 1s. 6d. (10-gm.) per gm. and ACID TARTRATE, B.P., from 9d. to 1s.

AMIDOPYRIN. — Minimum rate is 23s. 1d. per lb. with usual differentials for small lots.

p-AMINOSALICYLIC ACID. — The SODIUM salt is about 24s. 9d. per kilo, minimum term.

AMYLOBARBITONE. — B.P.C. is 77s. 6d. per kilo for minimum 25-kilo lots and SODIUM, B.P.C., 87s. 6d. per kilo.

ASPIRIN. — 5-cwt. lots are 4s. 9d. per lb.; 1-cwt., 4s. 11d.

BARBITONE. — Rate for 50-kilo lots is 47s. 3d. per kilo. The SODIUM derivative is 50s. 6d. per kilo.

BISMUTH SALTS. — The following are the prices (per lb.) in largest bulk packages: —

	28 lb. to 1-cwt.	1-cwt.	5-cwt.
	s. d.	s. d.	s. d.
CARBONATE ..	22 3	21 9	21 4
SALICYLATE ..	21 9	21 4	20 10
SUBGALLATE ..	21 1	20 8	20 2
SUBNITRATE ..	20 5	20 0	19 6

The 1-cwt. rates (per lb.) for other salts are: — CITRATE, B.P.C., 22s. 8d.; NITRATE, crystal, 14s. 8d.; OXIDE, B.P.C., 27s. 7d.; OXYCHLORIDE, B.P., 27s. 9d.; OXYDOGALLATE, B.P.C., 28s. 9d.; SODIUM TARTRATE, 35s. 6d.; and TRIBROMPHENATE, B.P.C., 26s. 9d.

BUTOBARBITONE. — B.P.C. is 92s. 6d. per kilo in minimum 25-kilo lots, SODIUM salt is 102s. 6d. per kilo.

CARMINE. — Price is 105s. per lb. for 1-cwt. lots.

COCAINE. — For 16-oz. lots the price of the HYDROCHLORIDE is 91s. 6d. per oz. and ALKALOID, 101s. Subject to D.D.A. regulations.

CYCLOBARBITONE. — B.P.C. in 25-kilo lots or over is 82s. 6d. per kilo.

DICOPHANE (DDT). — Prices are as follows: — 1-cwt. lots 2s. 11½d. per lb.; 5-cwt., 2s. 10d.; 1-ton, 2s. 8½d.

GALLIC ACID. — B.P.C. is 9s. 7d. per lb. for 1-cwt. lots. Smaller lots up to 10s. per lb. for 14-lb. lots. Technical grade is 8s. 10d. per lb. in 1-cwt. lots.

HEXOBARBITONE. — In 25-kilo lots the price is 115s. per kilo. SODIUM salt is 125s.

HYDROCYANIC ACID. — Dilute B.P.C. is from 3s. 2d. to 4s. per litre, as to quantity; Scheeles is from 3s. 10d. to 4s. 9d.

HYOSCINE HYDROBROMIDE. — Price per oz. is 102s.

ICHTHAMMOL. — B.P. is from 2s. to 2s. 6d. per lb. in 1-cwt. lots as to origin and container.

IODIDES. — Current quotations (per lb.) include the following: —

	28-lb.	1-cwt.	5-cwt.
	s. d.	s. d.	s. d.
POTASSIUM ..	10 3	9 9	9 4
SODIUM ..	14 1	13 2	12 9

IODINE. — Resublimed is 13s. 5d. per lb. in 1-cwt. lots, or 12s. 11d. in 5-cwt. lots. Minimum delivered rate for CRUDE is unchanged at 17s. 4d. per kilo.

IRON SALTS. — GLUCONATE, B.P.C., is 6s. 6d. per lb. in 1-cwt. lots; SULPHATE,

B.P. crystals are 9d. per lb. in 28-lb. lots; 1-cwt. is 55s. per cwt. and 5-cwt., 50s. per cwt. Granulated and pea crystals are 2s. 6d. per cwt. more; SULPHATE EXSICCATED is 1s. 5d. per lb. for 28-lb., 1-cwt. 118s.; 5-cwt., 113s. per cwt., 1-cwt. fibre kegs free. Other packages extra. PHOSPHATE, SACCHARATED, B.P.C., 28-lb. lots are 3s. 7d. per lb. OXIDE, RED PRECIPITATED, B.P.C., 1949, 1-cwt., 2s. 1d. per lb.; CARBONATE, SACCHARATED, B.P.C., 1949, 28-lb., 3s. 1d.; 1-cwt., 2s. 10d. AMMONIUM SULPHATE, 1-cwt., 1s. 7d. per lb. QUININE CITRATE, 2s. 1d. per oz. in 100-oz. tin.

LACTOSE. — English, in 1-ton lots packed in 1-cwt. paper-lined sacks, is £129 10s. per ton, delivered in the United Kingdom.

LEAD ACETATE. — B.P. crystals are 200s. per cwt. and technical, 180s.

MAGNESIUM HYDROXIDE. — Makers' prices for B.P.C. are 1-cwt. lots, 3s. 5d. per lb. and 1-ton, 3s. 2d. per lb.

MAGNESIUM PEROXIDE. — Price (per lb.) for 1-cwt. lots of B.P.C. (15 per cent.) is 3s. 11d.

MAGNESIUM SULPHATE. — Quotations for B.P. in minimum 1-ton lots vary between £20 and £21 per ton according to size of crystal and manufacturer. Exsiccated is £42 per ton. All ex works.

MERCURY DERIVATIVES. — Quotations (per kilo) for 50-kilo lots are as follows: — AMMONIATED, B.P., lump or powder, 62s. 9d.; PERCHLORIDE, B.P., powder, 55s. and lump, 56s. 3d.; SUBCHLORIDE (calomel), B.P., 63s. 3d.; OXIDES, yellow, B.P., 67s. 3d.; red, B.P.C., 1949, 68s. 3d. OXYCYANIDE, B.P., 83s.

METHADONE HYDROCHLORIDE. — Price is from 2s. to 2s. 6d. per gm. as to quantity. Subject to D.D.A. regulations.

METHOIN. — B.P. is about 120s. per lb.

METHYL PHENOBARBITONE. — B.P. is 90s. per kilo in 25-kilo lots.

METHYL SALICYLATE. — Five-ton lots are 3s. per lb.; 1-ton, 3s. 0½d.; 10-cwt., 3s. 1d.; 5-cwt., 3s. 2d.; 1-cwt., 3s. 3d.

NIKETHAMIDE. — Prices per kilo are: — 1-kilo, 113s.; 50-kilo, 105s.

OLEIC ACID. — Price of pale distilled is £175 10s. per ton in 3½-cwt. original loaded drums.

OPATES. — Home trade prices (per oz.) are as follows: —

	35 oz. and over	Under* 35 oz.
	s. d.	s. d.
CODEINE		
PHOSPHATE ..	38 3	39 3
HYDROCHLORIDE ..	44 0	45 3
SULPHATE ..	44 0	45 3
ALKALOID ..	50 9	52 0
MORPHINE		
ACETATE ..	43 6	44 9
HYDROCHLORIDE ..	43 6	44 9
SULPHATE ..	43 6	44 9
TARTRATE ..	52 9	54 3
ALKALOID ..	52 9	54 3
ETHYLMORPHINE		
HYDROCHLORIDE ..	46 9	48 0
ALKALOID ..	54 9	56 0
DIAMORPHINE		
HYDROCHLORIDE ..	47 3	48 6
ALKALOID ..	52 0	53 3

Subject to D.D.A. Regulations.
*Containers below 35 oz. 1s. 6d. per container.

OXALIC ACID. — Manufacturers' rates for 1-ton lots are from £129 per ton, delivered.

PAPAVERINE. — Synthetic HYDROCHLORIDE is 250s. per kilo.

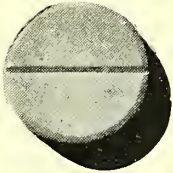

PARAFFINS. — Prices to wholesale distributors are: — Liquid: HEAVY, B.P. £107 17s. 6d. per ton; LIGHT, B.P. £87 15s.; Technical White oils, £79 5s. for the LIGHT and £92 15s. for the MEDIUM,




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These coloured chewing tablets are sweetened, have a delicious flavour, and are particularly suitable for the treatment of adults.



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Now is the time for them to start the daily routine—2 Adexolin capsules for adults, 12 drops of Adexolin liquid for infants.

Now is the operative, and *Adexolin* the profitable—word.

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Capsules: 6,000 units vitamin A; 1,000 units vitamin D. Liquid: 12,000 units vitamin A; 2,000 units vitamin D per cc.

CAPSULES	FACE PRICE	TRADE PRICE	LIQUID	FACE PRICE	TRADE PRICE
25	2/-	18/- per doz.	$\frac{1}{2}$ oz.	2/3	20/3 per doz.
100	6/-	54/- per doz.	2 oz.	5/3	47/3 per doz.
1,000	36/-	27/- each	16 oz.	30/-	22/6 each
No. 1 Parcel	2 doz. x 25's	£1 12s. od.	No. 4 Parcel	2 doz. x $\frac{1}{2}$ oz. bottles	£1 16s. od.
No. 2 Parcel	1 doz. x 100's	£2 8s. od.	No. 5 Parcel	1 doz. x 2 oz. bottles	£2 2s. od.



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PENTOBARBITONE SODIUM. — Minimum 25-kilo lots are 125s. per kilo.

PETHIDINE HYDROCHLORIDE. — B.P. 100-gm. lots, 100s. Subject to D.D.A. regulations.

PHENOBARBITONE. — 50-kilo lots are 47s. 3d. per kilo and SODIUM, 50s. 6d.

POTASSIUM PERMANGANATE. — Current rate for B.P. material for 1-cwt. lots is 1s. 11½d. per lb. Technical is 204s. 6d. per cwt. and £193 10s. per ton.

POTASSIUM QUADROXALATE. — One-cwt. lots are 3s. 6d. per lb.

POTASSIUM SULPHATE. — One-cwt. lots are from 1s. 2d. to 1s. 3d. per lb.

POTASSIUM THIOCYANATE. — One-cwt. lots are 5s. 6d. per lb.

STRYCHNINE. — ALKALOID, 6s.; HYDROCHLORIDE, 5s. 10d.; SULPHATE, 5s. per oz., ex works.

SODIUM BROMATE. — 1-cwt. lots are quoted at 9s. 9d. per lb.

SODIUM PHOSPHATE. — B.P.C. powder is 2s. 3d. per lb.

SODIUM SULPHATE. — Makers' prices for B.P. range from £11 10s. to £18 17s. 6d. per ton as to crystal and quantity, ex works.

SODIUM SULPHITE. — 1-ton lots on the spot of ANHYDROUS (48-50 per cent.) are £71 10s. per ton in 1-cwt. drums or £67 5s. in 1-cwt. bags. CRYSTALS, B.P.C., are £32 15s. per ton in 2-cwt. paper-lined bags. Commercial crystals are from £27 to £28 15s. as to packing.

STILBOESTROL. — 1-kilo lots of B.P. and DIPROPIONATE are 730s. per kilo.

SULPHACETAMIDE. — Quotations (per lb.) for 1-cwt. lots are 24s. 6d. The SODIUM DERIVATIVE is 30s.

SULPHAGUANIDINE. — Manufacturers' rates for 1-cwt. lots are about 11s. per lb.

SULPHANILAMIDE. — Manufacturers' rates for 1-cwt. lots are 5s. 7d. per lb.

SULPHATHIAZOLE. — Price (per lb.) for 1-cwt. lots is 16s. 11d.

SULPHOCARBOLATES. — SODIUM PHENOLSULPHONATE, B.P.C., 1949 (powder) is 5s. 6d. per lb. in 1-cwt. lots and ZINC, B.P.C., 1949, is 5s. 6d.

SULPHUR. — B.P. PRECIPITATE in 1-ton lots is £112 10s. per ton, delivered U.K.

TANNIC ACID. — The B.P. levis, ex ether is quoted at 8s. 9d. per lb. for 5-cwt. lots and 9s. per lb. for 1-cwt. The B.P. powder is 8s. 6d. per lb. in 1-cwt. lots.

TARTARIC ACID. — Rates for the home trade are as follows: — 10-cwt. lots, 280s. per cwt.; 5-9-cwt., 282s.; 2-4-cwt., 284s.; 1-cwt., 285s.

UREA. — Manufacturers' rates for pharmaceutical grade are £63 per ton in 1-cwt. bags non-returnable. Technical quality is £44 10s. per ton.

Alcohol

BRITISH SPIRIT per proof gall.:

Ethyl Alcohol: (95 per cent. Gay Lussac, 66 o.p.); where the number of proof gall. taken over any one year ended March 31 is 300,000 or over the price is 4s. 6½d.; 200,000 and less than 300,000, 4s. 6½d.; 100,000 and less than 200,000, 4s. 7½d.; 50,000 and less than 100,000, 4s. 7½d.; 10,000 and less than 50,000, 4s. 8½d.; 2,500 and less than 10,000, 4s. 8½d. Prices are exclusive of duty and are for tank wagon lots. In 40-gall. drums there is a surcharge of 1d. per proof gall.

The following grades are subject to a premium on the above prices as follows:—

Absolute Alcohol, 99.5 per cent., 74.5 o.p., 3d. more per proof gall., the special

high strength (99.9 per cent., 75.2 o.p.), 5d. more. *Doubly-Rectified Alcohol* (S.V.R.), 95.8 per cent., 68 o.p. is 3d. more and *P.I. Rectified Alcohol*, 96.1 per cent., 68.5 o.p., 8d. more. *R. R. Absolute Alcohol* (re-rectified, 99.7 per cent., 75 o.p.), 15s. 8d. per bulk gall. net.

Methylated Spirits

METHYLATORS' rates per bulk gall. in Great Britain are as follows:—

Industrial Methylated spirit: Strength 61 o.p. 500 gall. and over, 6s. 3d.; 100 gall. and under 500 gall., 6s. 6d.; 30 gall. and under 100 gall., 6s. 9d.; 10 gall. and under 30 gall., 7s. 2d.; 5 gall. and under 10 gall., 7s. 7d. Strength 64 o.p., 1d. per gall. 66 o.p. (B.P.), 2d.; 68 o.p., 2½d. more than the above rates with 74 o.p. at 7s. 1d., 7s. 4d., 7s. 7d., 8s. and 8s. 5d. per gall. for similar quantities. Tank wagon delivery is 1½d. per gall. off list price—minimum, 500 gall. For industrial methylated spirit of standard toilet quality prices are from 7s. 11d. (tank wagon) for 500 gall. to 9s. 4½d. for 5-10 gall. (in drums) of 61 o.p.

Pyridinised industrial methylated spirit: Strength 61 o.p., 500 gall. and over, in one delivery, 6s. 4½d.; 100 gall. and under 500 gall., 6s. 9d.; 30 gall. and under 100 gall., 7s.; 10 gall. and under 30 gall., 7s. 5d.; 5 gall. and under 10 gall., 7s. 10d. Strength 64 o.p., 1d. per gall. more than foregoing rates.

Mineralised methylated spirit: Strength 61 o.p. in one delivery, 100 gall. and under 500 gall., 6s. 9½d.; 30 gall. and under 100 gall., 7s. 0½d.; 10 gall. and under 30 gall., 7s. 5½d.; 5 gall. and under 10 gall., 7s. 10½d. Strength 64 o.p., 1d. per gall. more than foregoing rates.

Methylated resin finish is 3d. per gall. over and *methylated shellac finish* is 1s. per gall. over the prices of pyridinised methylated spirit.

Terms:—Delivered free and carriage paid on returned empties; net cash one month.

Crude Drugs

ACONITE. — Spot supplies of Spanish *napellus* are 3s. 3d. per lb., duty paid.

AGAR. — *Kobé* is 12s. 4½d. per lb., duty paid. Shipment, 10s. 6d., c.i.f.

ALOE. — Cape prime for shipment is 250s. per cwt., c.i.f.; spot, 280s.

ANISEED (STAR). — Chinese is 160s. per cwt. nominal, spot.

ANTIMONY. — English 99.6 per cent. is £222 10s.; 99 per cent., £210 per ton.

BALSAMS. — Quotations (per lb.) are:— CANADA: Spot is 26s.; new-crop for shipment at 25s., c.i.f. COPAIBA, Para is from 7s. 9d. to 11s. duty paid, PERU, 11s., duty paid (no c.i.f. offers). TOLU (genuine as imported), 27s. 6d.; B.P., 17s. 6d., spot.

BELLADONNA. — Herb is 2s. 6d. per lb. on the spot. ROOT, 1s. 10d. spot; shipment, 1s. 3d., c.i.f.

BENZOIN. — Sumatra No. 1 block on the spot is £26 to £27 (£23 5s., c.i.f.), and No. 2, £21 10s. Almonds, 15s. per lb., c.i.f.

BUCHU. — Spot rounds are 7s. 3d. per lb., no shipment offers.

CAMPOR. — B.P. POWDER is from 5s. 3d. per lb., duty paid. TABLETS, 4-oz. are 5s. 9d., c.i.f., and 6s. in bond.

CAPSCUMS. — East African are from 120s. to 200s. per cwt. on the spot, as to quality.

CARDAMOMS. — Aleppy greens on the spot are 15s. 3d. per lb. and shipment, 14s., c.i.f. No. 1 seed, 21s. 6d. per lb., c.i.f.

CASCARA SAGRADA. — Spot 1956 processed peel is 320s. per cwt., duty paid, and 1957 peel, 295s. August-September shipment is 252s. 6d., c.i.f., quoted, with whole at 255s., c.i.f.

CASSIA BARK. — Whole on the spot is

now quoted at 145s. per cwt., in bond, and broken, 132s. 6d., in bond.

CASSIA FRUIT. — *C. fistula* is offered at 87s. 6d. per cwt. on the spot.

CHERRY BARK. — Thin natural is from 1s. 9d. per lb., duty paid, and rossed, 2s., on the spot.

CHILLIES. — Mombasa on the spot are 245s. per cwt.; shipment, 180s., c.i.f.

CINCHONA. — Parcels of druggists' bark *Succirubra* hybrid are from 1s. per lb. on the spot.

CINNAMON. — Ceylon for shipment (c.i.f.) per lb., OOOO, 8s. 5½d.; OOO, 8s.; OO, 7s. 10½d.; seconds, 6s. 11½d.; featherings, 2s. 6d.; quillings, 4s. 6d.; chips, 1s.

CLOVES. — Zanzibar on the spot are quoted at 3s. 4½d. per lb. Shipment, 3s. 2½d., c.i.f.

COCHINEAL. — Silver - grey Peruvian 9s. 6d. per lb. Canary Isles black-brilliant, 25s. 6d.

DIGITALIS LEAF. — *Purpurea* is offered at 1s. 2½d. per lb., c.i.f.

ERGOT. — Portuguese is 5s. 6d. per lb., c.i.f. for prompt shipment and 6s. spot. American, 7s. 3d., c.i.f. Bulgarian, 9s. 6d. Hungarian defatted, 13s. 6d., spot.

GINGER. — African on the spot is 137s. 6d. per cwt. and new-crop for shipment, 130s., c.i.f. Jamaican No. 3 on the spot is offered at 565s. Cochin spot, 115s.; shipment, 105s., c.i.f.

GUM ACACIA. — Kordofan cleaned sorts are 137s. 6d. per cwt. on the spot; afloat 127s., c.i.f.

HONEY. — Australian light-amber is 117s. to 122s. 6d. and medium amber, 110s. 6d. to 115s. Argentine 127s. 6d. to 132s. 6d.; Jamaican, 140s. to 150s., all per cwt., on the spot.

IPECACUANHA. — Spot *Matto Grosso* low test is 60s. per lb. Shipment (c.i.f.): Costa Rican (limited supplies), 68s.; Nicaraguan (November), 66s.; Colombian, 65s.; *Matto Grosso*, no offers.

JALAP ROOT. — Mexican is cleared on the spot, no forward offers, Brazilian, 3s. per lb., spot.

KARAYA. — No 1 gum on the spot is now quoted at 245s. per cwt. and No. 2 at 205s.

KOLA NUTS. — Jamaican are offered at about 8d. per lb., spot, and 6½d., c.i.f. African, 6½d. spot and 4½d., c.i.f.

LANOLIN. — ANHYDROUS, B.P. is from 175s. to 190s. per cwt. and HYDROUS, B.P., 150s. to 170s.

LIQUORICE. — Natural root: Russian available at 52s. 6d. Block juice: Anatolian, 200s. per cwt., spot. Italian stick from 310s. to 476s. per cwt. Spray-dried extract, 2s. 9d. per lb.

LOBELIA HERB. — Spot offers are from 5s. 3d. to 5s. 6d. per lb. New-crop for shipment, 5s. 3d., c.i.f.

MACE. — Whole on the spot is from 22s. 6d. per lb.

MENTHOL. — Chinese. Spot is 52s. 6d. per lb., duty paid; August-September shipment, 47s. 3d., c.i.f. Brazilian, spot, 42s., duty paid; shipment, 39s. 6d., c.i.f. Formosan, 45s., c.i.f., nominal. Japanese, 46s., c.i.f.

MERCURY. — Price per flask (76-lb.) is £85 to £87 on the spot.

NUTMEGS. — West Indian 80's not quoted; sound unassorted, for shipment 15s. 9d. per lb.; defectives, 10s., f.o.b.

ORANGE PEEL. — West Indian bitter quarters are 1s. per lb.; Spanish, 1s. 3d.; thin-cut Tripoli, 2s. 4d.

PAPAIN. — East African grade 2 is 25s. per lb., spot; No. 1, 30s., in bond. Ceylon white, 30s., spot and 26s., c.i.f.; brown, 22s. 6d., c.i.f.

PEPPERMINT LEAVES. — Dutch for shipment are offered from 2s. 6d. to 3s. per lb., c.i.f.

PIMENTO.—Spot is 510s. per cwt. with forward at 450s., f.o.b.

PODOPHYLLUM.—*Emodi* is 165s. per cwt., c.i.f. *Peltatum*, 4s. per lb., spot, and 430s. per cwt., c.i.f. for shipment.

QUASSIA.—Chips are 47s. to 50s. per cwt., on the spot.

QUILLAIA.—Spot offers of whole bark at 210s. per cwt., and crushed, 250s. Shipments offers at 147s., c.i.f.

RAUWOLFIA.—*Serpentina* is 4s. 3d. per lb., c.i.f., and *vomitaria*, 2s. 3d., c.i.f.

RHUBARB.—Quotations for Chinese are from 6s. 6d. to 9s. 3d. per lb., as to quality.

SAFFRON.—*Mancha Selecta* is 250s. per lb., on the spot.

SARSAPARILLA.—Jamaican native red on the spot is 2s. 7d. per lb., and for shipment, 2s. 3d., c.i.f.

SASSAFRAS.—Selected bark is 5s. per lb.

SEEDS.—ANISE.—Cyprian, 170s., spot, and 160s., c.i.f., quoted for shipment. CARAWAY.—Dutch now quoted at 100s., duty paid. CELERY.—Indian firm at 187s. 6d., on spot, and 157s. 6d., c.i.f., for shipment. CORIANDER.—Spot Moroccan, 92s. 6d.; Rumanian, 65s.; Polish, 60s. (splits 52s. 6d.); all duty paid. CUMIN.—Unchanged, Spot, Cyprian, 180s.; Iranian, 175s., duty paid. Shipment, Cyprian, 165s., c.i.f. DILL.—Firm, Indian, 67s. 6d., spot; for shipment, 57s. 6d., c.i.f., quoted. FENNEL.—Quiet, Indian on spot is 125s. FENUGREEK.—Steady, Indian, 67s. 6d., and Moroccan, 65s., duty paid, for shipment, Indian is 52s. and Moroccan, 41s., c.i.f. MUSTARD.—English, 62s. 6d. to 77s. 6d. quoted according to quality.

SENEGA.—Spot is 18s. 3d. per lb. with shippers asking 17s. 3d., c.i.f.

SENNA.—*Timnevelly* LEAVES, prime No. 1, 1s. 5d. per lb., f.a.q., No. 3, 10d.; PODS, manufacturing, scarce; f.a.q., 1s. 4d.; hand-picked, 1s. 6d. to 2s. 6d. *Alexandria* pods available from 1s. 6d. to 3s. 6d. per lb., with hand-picked at from 5s. 6d. to 7s. 6d.

SHELLAC.—F.O.T.N. 230s. per cwt., F.O. No. 1, 240s.; fine orange, 250s. to 310s.

SLEPPERY ELM.—Grinding quality bark is 2s. 6d. per lb.

SQUILL.—New-crop white is offered on the spot at 60s. per cwt.

STRAMONIUM.—Indian LEAVES are 70s. per cwt., and European 80s. on the spot.

STROPHANTHUS.—*Kombé* on the spot is 7s. 9d. per lb. for the 100 per cent.; *Gratus* is unobtainable on the spot.

STYRAX.—Unobtainable on the spot.

TONQUIN BEANS.—Para on the spot are cleared; September-October shipment, 7s. 9d., c.i.f.

TRAGACANTH.—No. 1 ribbon is £160 to £165 per cwt., No. 2, £142 10s. to £147 10s.

TURMERIC.—^aMadras finger on the spot is 55s. per cwt. with business reported under that figure.

VALERIAN ROOT.—Indian on the spot is 130s. and Belgian, 175s. per cwt. Dutch for prompt shipment is 182s., c.i.f.

VANILLIN.—Rates (per lb.) are now:—5-cwt. lots, 25s. 3d.; 1-cwt., 25s. 6d.; 56-lb., 25s. 9d.; smaller quantities, 26s.

WAXES.—(Per cwt.) BEES'—Dar-es-Salaam, spot 525s., shipment, 515s., c.i.f.; Sudanese, 460s., spot, in bond, and 445s., c.i.f. Abyssinian, spot, 470s. in bond; August shipment, 470s., c.i.f. CANDELILLA.—Spot is 530s. CARNAUBA.—Fatty grey, spot, 570s. per cwt.; for shipment, 565s., c.i.f. Prime yellow, spot, 1,120s.; shipment, 1,085s., c.i.f.

WITCH HAZEL LEAVES.—Spot supplies are 2s. per lb.

Essential and Expressed Oils

ALMOND.—British oil is 9s. per lb.

AMBER.—Rectified on the spot is 1s. 6d. per lb.

ANISE.—Chinese, 11s. 6d. per lb., spot; shipment, 12s. 3d., c.i.f.

BAY.—West Indian is 12s. 6d. per lb. on the spot.

BERGAMOT.—Spot supplies are from 85s. per lb.

BIRCH TAR.—Rectified is about 14s. per lb. in 1-cwt. lots.

BOIS DE ROSE.—Brazilian is 26s. per lb. on the spot and 25s., c.i.f.

CADE.—Spanish is 3s. 6d. per lb. for drum lots.

CAJUPUT.—Spot supplies are from 10s. 6d. per lb.

CALAMUS.—Spot quotations are 62s. 6d. per lb.

CAMPHOR, WHITE.—Chinese is 2s. 4½d. per lb., duty paid.

CANANGA.—Spot is from 50s. to 52s. 6d. per lb.

CARAWAY.—English-distilled is offered at 55s. and imported from 28s. per lb.

CARDAMOM.—Price per lb. is from 350s. for English-distilled and from 267s. 6d. to 297s. 6d. for imported.

CASSIA.—Spot is scarce at about 13s. 6d. per lb. with shipment, 12s. 9d., c.i.f.

CASTOR.—Minimum charge for home-produced B.P. oil on the spot is £187 per ton naked ex mill.

CEDARWOOD.—1-cwt. lots of American are 7s. per lb., and Kenya, 4s. 6d.

CELERY SEED.—Oil is 100s. per lb. for bulk lots.

CHENOPODIUM.—Spot value is now 35s. per lb. for original containers.

CINNAMON.—From quillings, best English-distilled is 50s. per oz.; other B.P. oils, from 165s. per lb. Ceylon leaf, crude, 14s. 6d. and rectified, 25s. per lb., spot.

CITRONELLA.—Ceylon, spot, 4s. 9d.; shipment, 4s. 7d. to 4s. 10d., c.i.f. Formosan, September-October, 6s. 6d., c.i.f., 6s. 10½d. in bond; Java, 6s. 7½d., c.i.f.

CLOVE.—Madagascar leaf is 7s. 11d. per lb., duty paid and 6s. 10d., c.i.f., for shipment. Rectified B.P., 17s. 6d. 87–88 per cent., 10s. 6d. Distilled bud oil, English, from 28s. 9d. to 35s. as to quantity.

COD-LIVER.—B.P. is 11s. 6d. per gall. in charged returnable drums. Veterinary is from 9s. 6d. per gall.

CORIANDER.—B.P. oil is quoted from 77s. 6d. to 82s. 6d. per lb.

CUBEB.—Spot supplies are offered at 45s. per lb.

CUMIN.—Quotations for English-distilled oil are about 102s. per lb. and imported, 57s. 6d.

DILL.—B.P. English-distilled oil prices are nominal; imported from 36s. per lb.

EUCALYPTUS.—70 to 75 per cent. eucalyptol on the spot is 4s. 9d. per lb. 80 to 85 per cent., 5s. 6d.

FENNEL.—Spanish sweet on the spot is quoted at 10s. per lb., with Russian at 22s. 6d.

GERANIUM.—Bourbon is 115s. per lb. on the spot and Algerian, 97s. 6d.

GINGER.—English-distilled oil is 215s. per lb. Imported: Jamaican, 167s. 6d.; Chinese, 100s., duty paid.

GINGERGRASS.—Spot offers are from 27s. 6d. per lb.

HYATA.—Formosan, minimum 90 per cent. safrole, 4s. 10½d. per lb., spot.

JUNIPER BERRY.—B.P.C. oil is from 12s. 6d. per lb. and Jugo-Slavian, 14s. on the spot. English-distilled is 155s. JUNIPER WOOD, from 5s.

LAVANDIN.—Spot is 10s. per lb. for original drums.

LAVENDER.—French oil is from 55s. to 72s. per lb. as to make.

LAVENDER SPIKE.—Spanish is offered from 12s. 9d. to 14s. per lb. on the spot.

LEMON.—Prices of B.P. oil (4 per cent. citral) vary greatly on the spot according to quality and range between 23s. and 40s. per lb. Californian, 28s. 6d. to 36s. 4d., c.i.f., as to quality, subject to licence.

LEMONGRASS.—Spot is 8s. 3d. per lb., and August shipment, 8s. 1d., c.i.f.

LIME.—West Indian distilled is 50s. per lb. on the spot. Supplies short.

NUTMEG.—Imported B.P. oil is about 105s. per lb. English-distilled, 180s., nominal.

OLIVE.—Spanish is 27s. and French 26s. 6d. per gall. on the spot, ex-wharf, for B.P. quality.

ORANGE.—Spot quotations of sweet oil include Floridan at 4s. per lb.; Californian, 9s.; West Indian, 7s. South African, 7s. 6d.; West African, 15s. 6d. For shipment, proprietary brand Californian cold-pressed U.S.P., 13s. 2d., c.i.f. Terpeness is 200s. per lb., spot and bitter, 21s. 6d. per lb.

OTTO OF ROSE.—Turkish is £275 per kilo; Bulgarian, 675s. per kilo.

PALMAROSA.—East Indian, 45s., spot, and 39s. 6d., c.i.f.; Formosan, 40s.

PATCHOULI.—Penang is 32s., in bond, and 31s., c.i.f.

PENNYROYAL.—Spot is quoted from 17s. 6d. per lb., duty paid.

PEPPERMINT.—*Arvensis*: Chinese is 28s. per lb. on the spot and 27s. 3d., c.i.f. Brazilian, 17s. 9d., spot, and 17s. 3d., c.i.f. Formosan, August, 18s. 6d., c.i.f. (second-hand sellers); spot, 19s. 6d. Italian "Mitcham"-type oil on spot is from 52s. 6d.; American, 28s. to 40s. as to origin.

PETITGRAIN.—Paraguay is offered at 23s. 6d. per lb.

PIMENTO.—English-distilled berry is 180s. per lb.; imported, 75s. Rectified leaf, 27s. 6d. per lb. for small lots.

PINE.—*Pumilionis* on the spot is from 16s. per lb.; *sylvestris*, 25s.; Siberian (*abietis*), 12s. 6d. to 15s.

ROSEMARY.—Spanish oil on the spot is 7s. 6d. per lb., duty paid.

SAGE.—Spanish is from 8s. 9d. to 9s. 6d. per lb. on the spot and Dalmatian, 30s.

SANDALWOOD.—Mysore is 85s. per lb. for lots of about 2-cwt.

SASSAFRAS.—Brazilian is 3s. 9d. per lb., duty paid.

SPEARMINT.—Offers of U.S.P. grade are from 29s. per lb. on the spot.

TANGERINE.—Spot supplies of best oil are offered from 40s. to 42s. 6d. per lb. as to holder.

THYME.—Spot is 10s. 6d. per lb.

VETIVERT.—Spot is currently at about 95s. per lb.

UNITED STATES REPORT

NEW YORK, AUGUST 27: A half-cent higher per lb. among salicylates were SALICYLIC ACID, U.S.P., crystals at 52½ cents; ASPIRIN at 63½ cents; METHYL SALICYLATE, U.S.P., at 62½ cents; and SODIUM SALICYLATE, U.S.P., at 78½ cents. A seven-cent rise in DEXTRIN pushed the white to \$8.98 per 100 lb. and the yellow to \$9.14. OXALIC ACID was raised two cents to 18½ cents a lb. Higher per lb. among CRUDE DRUGS was Asiatic STYRAX at 90 cents, up 10 cents. Lower per lb. were Spanish SAFFRON at \$38.50, down \$1.50, and Mexican VANILLA BEANS at \$8.25, down 50 cents. BERGAMOT OIL advanced 50 cents to \$12 a lb. Lower were LEMONGRASS at \$1.25, down five cents, and Formosan CITRONELLA at \$1, down 10 cents.

TRADE MARKS

APPLICATIONS ADVERTISED BEFORE REGISTRATION

From the "Trade Marks Journal," August 14

For appliances for massage of the body (10)
DOLLY, 766,142, by R. Demuth, Ltd., Farnham, Surrey.

For fruit juices and non-alcoholic beverages (32)
PEE-ELL-JAY, 765,667, by Pure Lemon Juice Co., Ltd., Croydon, Surrey.

From the "Trade Marks Journal," August 21

For fertilisers for sale in England, Scotland and Wales (1)
FISONS EVERGREEN, 756,811, by Fisons, Ltd., Felixstowe, Suffolk.

For manures and chemical substances for use in agriculture and horticulture (1)

Device, 760,457, by Compagnie Nord Africain de l'Hyperphosphate Reno, Sfax, Tunisia.

For chemical products used in industry, science and photography, agriculture, horticulture and forestry; manures (natural and artificial); chemical substances for preserving foodstuffs, and adhesive substances used in industry, etc. (1)
SAFETEBOR, 761,202, by Borax Consolidated, Ltd., London, S.W.1.

For all goods but not including plastics (1)
MICRALITE, 765,148, by Joseph Crosfield & Sons, Ltd., Warrington, Lancs.

For lacquers, being preparations for use in hair-dressing and applied by spraying (3)

Device of words SPRAY NET, 737,585, by Akos Chemicals, Ltd., London, N.W.8.

For soaps, perfumes, non-medicated toilet preparations, essential oils, cosmetics, hair lotions and dentifrices (3)

Device of words PANTENE SEMI-FIX, 761,119, by Roche Products, Ltd., Welwyn Garden City, Herts.

For perfumes, non-saponaceous toilet preparations (not medicated), cosmetic preparations, dentifrices, depilatory preparations, toilet articles, sachets for use in waving the hair and essential oils (3)
LASSO, 764,466, by Jean Patou, Parfumeur, Paris, France.

For soaps, perfumes, non-medicated toilet preparations and cosmetic preparations (3)
FRESHMAN, 764,929, by Henry C. Miner, Ltd., Surbiton, Surrey.

For all goods (3)
AENEM, 766,061, by Neckarchemie G.m.b.H., Oberndorf, Germany.

For pharmaceutical substances and preparations, all being for export (5)
WALLACE, 754,669, by Wallace Manufacturing Chemists, Ltd., London, N.W.3.

For preparations of vitamins, minerals and active substances of grain germs, for use as nutritional additives to foodstuffs for animals (5)
MULTIFORSAN, 758,677, by Multiforsa, Ltd., Zug, Switzerland.

For pharmaceutical preparations and substances for human and veterinary use (5)
PREDASMAL, 763,132, by Organon Laboratories, Ltd., London, W.C.2.

For all goods (5)
FERAMAL, 763,486, by Glaxo Laboratories, Ltd., Greenford, Middlesex. SETHADIL, 766,232, by Smith, Kline & French Laboratories, Ltd., London, S.E.5. SPASMOBERON, 766,355-56, by C. H. Boehringer Sohn, Ingelheim-on-Rhine, Germany.

For steroid pharmaceutical preparations for use in the treatment of the blood and the blood circulatory system (5)
MANVENE, 763,521, by G. D. Searle & Co., Skokie, Illinois, U.S.A.

For pharmaceutical preparations in powder form for use in the treatment of headaches (5)
CAPSIT, 764,336, by Capsit Co., Edinburgh.

For laxatives (5)
SILBELAX, 765,056, by Silten, Ltd., Hatfield, Herts.

For herbicides (5)
VEGADEX, 765,572, by Monsanto Chemical Co., Saint Louis, Missouri, U.S.A.

For razors, razor blades; beard, hair and nail clippers, all being hand tools; cases for razors,

razor strops; and hair-cutting machines for personal use, electric shaving instruments and appliances for sharpening and setting razor blades and parts, etc. (8)

Device, 760,581, by Ever-Ready Razor Products, Ltd., London, W.C.1.

For scientific instruments and apparatus; weighing, measuring and checking instruments and apparatus; photographic utensils; and parts and fittings made of plastic (9)

RESILON, 761,176, by Mendip (Chemical Engineering), Ltd., Ashford, Middlesex.

For apparatus and instruments for use in physics; optical, photographic and cinematographic instruments and apparatus; and parts (9)

LINHOF, 761,967, by Valentin Linhof, K.G., Munich, Germany.

For tripod stands for cameras (9)

REPRO, 762,283, by North Staffs Photographic Services, Newcastle, Staffs.

For apparatus for sterilising air, fluids and gases; and heating appliances, and parts (11)

Device with word HANOVIA, 761,229, by Engelhard Industries, Ltd., London, W.C.1.

For hot water bottles (21)

POLYSAFE, 764,640, by Yanky-Pak, Ltd., London, E.2.

COMING EVENTS

Sunday, September 1

SOUTH LONDON AND SURREY PHARMACISTS' GOLFING SOCIETY, 11 field golf and country club, near Crawley, at 9.30 a.m. Stableford competition.

Thursday, September 5

SOUTHERN AREA, INSTITUTE OF PACKAGING, Agriculture House, Knightsbridge, London, S.W.1, at 6.30 p.m. Mr. P. H. Saxon (Burroughs Wellcome & Co.) on "Works Study."

WILLS

MR. C. R. CLARKSON, M.P.S., 41 Compton Road, Croydon, left £6,466 (£6,423 net).

MR. J. E. FRENCH, M.P.S., 34 London Road, Newington, nr. Sittingbourne, Kent (a former chairman of the National Pharmaceutical Union), left £8,843 (£8,726 net).

MR. W. E. A. HAY, M.P.S., 15 Richard Avenue, Sunderland, Durham, left £9,176 (£9,131 net).

MR. A. C. SMITH, M.P.S., The Orchards, Grafton, nr. Beckford, Worcs, left £10,278 (£9,667 net).

PRINT AND PUBLICITY

COMMERCIAL TELEVISION

PROGRAMME details are given to enable chemists to put in linking-up displays if they wish. Notice given is as far in advance of the programme dates as can be guaranteed by the broadcasting companies.

Sunday, September 8

LONDON: Palmolive soap. Cadum soap. Air-wick. Purc Silvikrin.

MIDLAND: Silvikrin hair cream. Anadin. Milk of Magnesia tablets.

NORTH: Silvikrin hair cream. Anadin. Milk of Magnesia tablets.

SCOTLAND: Palmolive soap. Cadum soap.

ALL (except Scotland): Sunsilk shampoos. Knight's Castile soap.

ALL (including Scotland): Colgate dental cream. Max Factor's Primitif.

Monday, September 9

LONDON: Macleans tooth-paste. Macprin. Air-wick. Gibbs' S.R. tooth-paste. Silvikrin hair cream. Yeast-Vite. Anadin. Milk of Magnesia tablets.

MIDLAND: Vaseline hair cream. Gibbs' S.R. tooth-paste.

NORTH: Macprin. Sunsilk shampoos. Cephos. Silvikrin hair cream. Fynnon salt. Germolene.

ALL (except Scotland): Knight's Castile soap. Phyllosan. Phosferine. Brylcreem.

ALL (including Scotland): Aspro.

Tuesday, September 10

LONDON: Vaseline hair cream. Hi-Lyte projectors. Fynnon salt. Optrex eye lotion. Bisodol. Brylcreem.

MIDLAND: Air-wick. Immac. Phosferine.

NORTH: Vaseline hair cream. Delsey toilet tissue. Zoflora. Germolene.

SCOTLAND: Anadin.

ALL (except Scotland): Gibbs' S.R. tooth-paste. Knight's Castile soap. Phyllosan. Milk of Magnesia tablets.

ALL (including Scotland): Aspro.

Wednesday, September 11

LONDON: Macprin. Vaseline liquid shampoo. Cadum soap. Vaseline hair cream. Yeast-Vite. Phosferine.

MIDLAND: Sunsilk shampoos. Gibbs' S.R. tooth-paste. Fynnon salt. Phyllosan.

NORTH: Milk of Magnesia tablets. Macprin. Cadum soap. Vaseline hair cream. Cephos. Delsey toilet tissue. Gibbs' S.R. tooth-paste. Fynnon salt. Phyllosan.

SCOTLAND: Cadum soap. Alka-Seltzer.

ALL (including Scotland): Aspro.

Thursday, September 12

LONDON: Vaseline liquid shampoo. Linc-o-lin beer shampoo. Brylcreem.

MIDLAND: Macleans tooth-paste. Vaseline hair cream. Sunsilk shampoos. Gibbs' S.R. tooth-



LIVING TESTIMONIAL: "Still" from television series of 60-second "commercials" appearing twice weekly for Fynnon salt. Preparation of the series involved getting users to talk naturally in a studio full of cameras and lights, since television cameras could not operate effectively in their homes. Wilfred Pickles was chosen as interviewer because of his ability to make people feel at ease in strange surroundings.

paste. Anadin. Brylcreem. Milk of Magnesia tablets.

NORTH: Delsey toilet tissue. Gibbs' S.R. tooth-paste. Anadin. Germolene. Phyllosan.

SCOTLAND: Opas tablets. Linc-o-lin beer shampoo. ALL (including Scotland): Aspro.

Friday, September 13

LONDON: Vaseline liquid shampoo. Silvikrin hair cream. Yeast-Vite. Milk of Magnesia.

MIDLAND: Cadum soap. Sunsilk shampoos. Silvikrin hair cream.

NORTH: Cephos. Zoflora. Silvikrin shampoo. Phyllosan. Phosferine. Brylcreem. Milk of Magnesia.

ALL (except Scotland): Aspro. Gibbs' S.R. tooth-paste.

Saturday, September 14

LONDON: Cadum soap. Hi-Lyte projectors. Phyllosan. Milk of Magnesia tablets.

MIDLAND: Zoflora. Robinson's orange "smash." Milk of Magnesia tablets.

NORTH: Vindex. Robinson's orange "smash." Milk of Magnesia tablets. Macleans tooth-paste.

SCOTLAND: Moorland antacid indigestion tablets. Cadum soap. Fynnon salt. Anadin.

ALL (except Scotland): Macprin. Colgate chlorophyll tooth-paste. Vaseline hair cream. Sunsilk shampoos. Gibbs' S.R. tooth-paste. Alka-Seltzer.

ALL (including Scotland): Aspro. Hi-Fi make-up. Vita Glucose tablets.

Other products which are being currently advertised (but for which no day of showing has been notified) include: Rose's lime juice. Hand-joy. New Araby soap. Pride products. Meet. P.L.J. Vistascreen viewer. Trice depilatory. Rosemary shampoo. Scan eye lotion.

PUBLICATIONS

Price Lists

BENGLE & Co., LTD., Alpertown, Middlesex; August 1957 list.

DOLS' VOLATILISE FLANNEL, LTD., Huddersfield, Yorks; Retail and trade list 1957-58.

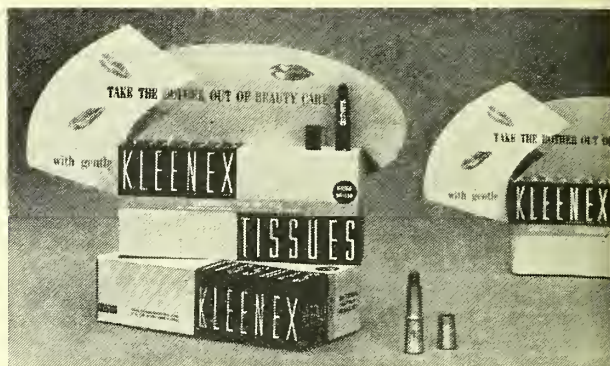
REVLON INTERNATIONAL CORPORATION, 86 Brook Street, London, W.1; Revlon price list.

THE DISTILLERS CO. (BIOCHEMICALS), LTD., The Broadway, Wimbledon, London, S.W.19; July 1957 descriptive list.



CONSUMER OFFER AND PACK: Combined consumer offer and display pack of Pears' transparent soap, now available from D. & W. Gibbs, Ltd., Hesketh House, Portman Square, London, W.1.

"CROWNER" FOR TOILET TISSUES: What is described as "a very feminine" pack crowner has been produced by Kimberly-Clark, Ltd., 11 Grosvenor Gardens, London, S.W.1, for Kleenex tissues. In a soft shade of blue, it highlights the cosmetic uses of the tissues.



Booklets and Leaflets

AMERICAN MEDICAL ASSOCIATION, North Dearborn Street, Chicago, Illinois, U.S.A.: "A.M.A. in Action." The story of American doctors' effort to bring better patient care into being and to improve public health. Pp. 44.

BENGER LABORATORIES, LTD., Holmes Chapel, Cheshire: A popular song of former years has been brought out of retirement to give an unusual twist to a direct mailing campaign. Thousands of copies of sheet music of Harry Champion's "Any Old Iron" are going out, but with the difference that on one of the inside pages the words and music give way to an advertisement for Imficon (veterinary). A sweeping red line links the song title, "Any Old Iron" with the phrase "Simply won't do." What pigs need, the reader is informed, is not just any old iron but intramuscular iron in the form of Imficon.

RANK PRECISION INDUSTRIES, LTD., 41 Mortimer Street, London, W.1: "Perfection in Colour, Strip and Slide Projectors." Pp. 12.

Catalogues

GNOME PHOTOGRAPHIC PRODUCTS, LTD., 354 Caerphilly Road, Cardiff: Summer 1957.

Medical Propaganda

SMITH, KLINE & FRENCH LABORATORIES, LTD., 120 Coldharbour Lane, London, S.E.5: "Histyl Spansule, the Long-acting Antihistamine Preparation." Pp. 10.

DISPLAY

Showcards

LONDON COMMERCIAL ELECTRICAL STORES, LTD., 22 Cursitor Street, London, E.C.4: Showcards 10½ x 8½ in. with slide in reversible descriptive price cards for use in connection with Sol-Tan electro-medical appliances.

CUXSON, GERRARD & CO., LTD., Fountain Lane, Oldbury, Birmingham: Farm first-aid outfit and travel-pack first-aid outfit showcards.

NEWBY BROTHERS, LTD., Sumner Lane, Birmingham, 19: Curlasette plastic roll curlers, 8½ in. x 6 in.

C. & D. WEEKLY LIST OF PRICES

A = Advanced; R = Reduced; I.R.P. = Inclusive Retail Price; * = Tax 30 per cent.; † = Tax 60 per cent.; ‡ = Tax 90 per cent.

BURROUGHS WELLCOME & CO.
(from August 19)

Wellcome		
cholera vaccine	1.5 mil	3 0 A
	10 mils	10 3 A
	25 mils	23 6 A
leptospira antiserum		
	10 mils	11 6 A
staphylococcus toxoid		
A	1 mil	3 0 A
	5 mils	7 6 A
B	1 mil	3 0 A
	5 mils	7 6 A
tetanus toxoid	1 mil	2 6 A
	5 mils	5 3 A
typhoid-paratyphoid		
A & B vaccine	1.5 mil	3 0 A
	10 mils	10 3 A
	25 mils	23 6 A
typhoid-paratyphoid		
A, B & C vaccine	1.5 mil	3 0 A
	10 mils	10 3 A
	25 mils	23 6 A
typhoid-paratyphoid		
A, B and cholera vaccine	1.5 mil	3 0 A
typhoid-paratyphoid vaccine with tetanus toxoid	No. 1 1 mil	2 9 A
	25 mils	28 0 A
	No. 2 1 mil	2 9 A
	25 mils	28 0 A
mixed gas gangrene anti-toxin	25,000 units	27 6 A
Dick test toxin (diluted) and control	1 mil	4 0 A
old tuberculin (human T)		
1-100	1 mil	3 6 A
1-1,000	1 mil	3 6 A
1-10,000	1 mil	3 6 A
tuberculin diagnostic jelly tube	1 gm. x 10	28 0 A
control for tuberculin diagnostic jelly tube	1 gm. x 10	19 0 A
tuberculin diagnostic and control jelly	1 gm.	6 0 A
diphtheria prophylactic A.P.T.	0.5 mil	2 0 A
	1 mil	2 6 A
	5 mils	5 6 A

diphtheria prophylactic P.T.A.P.	0.5 mil	2 0 A
	1 mil	2 6 A
	5 mils	5 6 A
diphtheria prophylactic T.A.F.	1 mil	2 9 A
	10 mils	10 6 A
	25 mils	24 0 A
INTERNATIONAL CHEMICAL CO., LTD.		
(from September 2)	Doz.	
BiSoDol tablets*	100	33 0 4 6 A
Bismag tablets*	75	14 9 2 0 A
	165	28 2 3 10 A
Nemolin ointment*		28 2 3 10 A
Kolynos tooth-paste*		13 6 1 10 A
		19 6 2 8 A
with chlorophyll*		14 9 2 0 A
dental cream*		18 9 2 7 A
denture powder*		11 0 1 6 A
		18 9 2 7 A
denture fixative		15 9 1 9 A
		27 0 3 0 A

MERCK SHARP & DOHME, LTD.		
(from August 26)		
Phedros	Each	
dispensing pack	16 oz.	6 2 R
PARKE, DAVIS & CO., LTD.		
(from August 22)		
Taka-Diastase elixir*		
	4 fl. oz.	5 3 A
	16 fl. oz.	19 0 A
	80 fl. oz.	92 0 A
Taka-Diastase and pepsin compound tablets	25	3 3 A
	100	10 3 A
Taka-Diastase, pepsin and pancreatin tablets	25	4 6 A
	100	16 0 A
STAFFORD-MILLER, LTD.		
(distributors: FASSETT & JOHNSON, LTD.)		
(from September 1)	Doz.	
Poli-Grip	16 0	2 0 A

P.A.T.A. LIST		
(Alterations notified this week by the Proprietary Articles Trade Association.)		
BIRLEY'S ANTACID, LTD.		
(from September 2)		
Birley's antacid powder*	14 6	2 0 A
	32 6	4 6 A
	49 0	6 9 A
tablets*	14 6	2 0 A

A. L. SIMPKIN & CO., LTD.		
Vita-glucose tablets, assorted flavours	Each	
	1 carton	16 6
	3 cartons	16 0
	6 cartons	15 6
chocolate flavour		
	1 carton	17 0
	3 cartons	16 6
	6 cartons	16 0

CECIL WOOD (HAZEL GROVE), LTD.		
(from September 1)	Doz.	
Chest and lung mixture*	15 6	2 2 A

NEW PRODUCTS AND PACKS

COUNTY LABORATORIES, LTD.		
Water Lilies shampoo*		1 0
DUNCAN, FLOCKHART & CO., LTD.		
Trophenium ampoules	6	90 0
	50	600 0
KNOX LABORATORIES, LTD.		
Bocasan*	73 6	10 0

LEDERLE LABORATORIES DIVISION, CYANAMID OF GREAT BRITAIN, LTD.		
Lederkyn tablets	Each	
	24	15 8
	100	58 8
	500	276 4

MAX FACTOR HOLLYWOOD AND LONDON (SALES), LTD.		
Printint perfume†		8 6
cologne†	2 oz.	9 6
	4 oz.	15 6
talc†		4 4

NEW ERA LABORATORIES, LTD.		
Nervone*	Doz.	
	100 0	15 0
NEWBY BROS., LTD.		
Beauty queen pack hair grips	Gross	
	80 0	1 0

PERIHEL, LTD.		
Accura 3 electric shaver*		210 0
PFIZER, LTD.		
Deltacortril AF	Each	
	100	120 0
REXALL DRUG CO., LTD.	Doz.	
Thru*	41 0	5 9



Richard Daniel & Son LTD

for

PACKED GOODS

*Attractively labelled
and presented*

PRICE LIST ON APPLICATION

**Mansfield Road
Derby** Tel.: 40671 (8 lines)
Also at Ashton-u-Lyne Tel.: 2816 (3 lines)

Bradosol Lozenges

each containing 0.5 mg. Bradosol (β-phenoxy-ethyl-dimethyl-dodecyl ammonium bromide)

**for Mouth and Throat Infections
of both bacterial and fungal origin
INCLUDING ORAL THRUSH**

Tubes of 20 lozenges (2/6)

Subject to a discount of 33½% to retail pharmacists. Exempt Purchase Tax

C I B A

'Bradosol' is a registered trade mark. Reg. user

CIBA LABORATORIES LIMITED, HORSHAM, SUSSEX

Telephone : Horsham 4321 Telegrams : Cibalabs, Horsham

Plenty of people will be
coming into your shop coughing
and sneezing this autumn
sell them

BESORBON
REGD. TRADE MARK

MEDICINAL SNUFF

the *proved* remedy
for colds and catarrh

*Your wholesaler can supply you
promptly. Orders of one dozen
come in attractive counter
display box for*

MORE SALES — MORE PROFIT

KEMSALES LTD., 20 EASTCHEAP, LONDON, E.C.3

GEORGTON BABY PANTS



for the
well-
dressed
Baby

*Covered in Nylon and the latest Rayon
Designs, and lined with a very soft
Plastic. Designed and cut to ensure
perfect comfort for the Baby.*

★ At Popular Prices.

Ask your
Wholesaler to show
you this range in the new
carton for counter display

Wholesale and Shipping only.

**GEORGE HIGTON
LIMITED**
WINDMILL ROW,
LONDON, S.E.11.



GALLIC ACID PYROGALLIC ACID

(RESUBLIMED, PURE CRYSTAL AND TECHNICAL)

AND DERIVATIVES

WHOLESALE AND EXPORT ONLY

J. L. ROSE, LIMITED, FRESH WHARF, HIGHBRIDGE ROAD, BARKING, ESSEX

BURNSIDE'S EUCALYPTUS OILS

Distilled in Australia from Eucalyptus leaves in accordance with the B.P. specification. W. K. Burnside Pty., Ltd., Melbourne, Australia offer:—

80/85% Rectified B.P. Eucalyptol B.P. 70/75% Rectified B.P.

Oil Eucalyptus Dives 40/45% Oil Eucalyptus Dives 90/95%
For the production of Thymol and Menthol

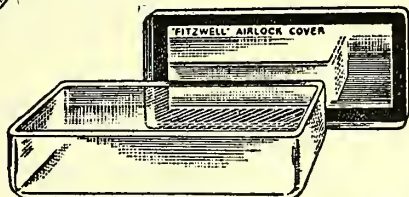
Oil Eucalyptus Phellandra—Phellandrene
For use in Antiseptics and Disinfectants

Agents for U.K.: **WILSON & MANSFIELD, LTD., 15 Philpot Lane, LONDON, E.C.3**
Phone: MANSION HOUSE 9264-5-6 (WHOLESALE ONLY) Grams: WYFIELD, LONDON

WHOLESALE

A. SEARLE & CO.**SURGICAL INSTRUMENT
MANUFACTURERS**

AND EXPORT

Conical Forceps
ContainerCheatles Forceps Jar In Glass
or Chrome Plated

Tray with Fitzwell Air Lock Cover



Medicament Bottle Stand

A. SEARLE & CO.**SERLANCO HOUSE, 245 St. JOHN ST., CLERKENWELL, LONDON, E.C.1**

Telephones: Terminus 1617, 1618

Telegrams: "Sersurg, Smith, London"

Cables: A.B.C. and Bentleys

*Good printing
definitely promotes
better Sales -***SUTTLEY & SILVERLOCK**

BRANCH OF KELLY'S DIRECTORIES LTD

are **SPECIALIST PRINTERS** *for* **CHEMISTS**

If you pay half as much attention to your labels, cartons and other printed matter as you do to the appearance of your windows—your two allies in sales-building—the Suttley & Silverlock printing service will solve your problems.

ANDOVER, HANTS

London Office: 2 ARUNDEL STREET, STRAND, W.C.2. Telephone: Temple Bar 3464 (9 lines)

STOCK LABELS for
Medicinal and Toilet
Preparations. A large
assortment of designs.
Samples on application.

DROXALIN

*A convenient form
in which to administer
Aluminium Hydroxide
treatment*

● **DROXALIN** enables Aluminium Hydroxide to be administered in an exceptionally palatable form.

● **DROXALIN** tablets are smooth, pleasant-tasting and break down easily in the mouth. They are, therefore, completely acceptable to the gastric patient. The tablets are individually and hygienically sealed in sets of six.

Professional samples available on request

ACTIVE INGREDIENTS

- Aluminium Hydroxide
- Magnesium Trisilicate



DROXALIN
Tablets
ACID ADSORBENT

Prescribed on Form E.C.10.

Manufactured by SCOTT & TURNER LIMITED
ANDREWS HOUSE, NEWCASTLE-ON-TYNE

MEGALON LIVER EXTRACTS

Crude and Refined Injectable in bulk, ampoules and vials. Oral Tonics and concentrated pastes for oral preparations.

INJECTION PRODUCTS

in a wide range

MEDICINAL TABLETS

to official and private formulations.

Manufactured by

**ANTIGEN LTD., ROSCREA,
REPUBLIC OF IRELAND**

Please send enquiries to:—

**ANTIGEN LTD., 67 HIGH STREET,
BEXLEY KENT.**



*When your customers
ask for a Compressed
Sanitary Towel* ←

→ *Why not offer*
SANTALUXE

in individual cartons

They have been selling for
years and are considered
in every way a most
satisfactory and
reliable product.

From all wholesalers.

ROBERT BAILEY & SON, LTD.

SURGICAL DRESSINGS MANUFACTURERS
DYSART STREET, GREAT MOOR, STOCKPORT
Phone: STEPPING HILL 3006/7 Grams: "UNDISPUTED" STOCKPORT



Must lay in bigger stocks this time

... another
half-dozen customers and
I'll be out of PLJ.



PLJ Ltd., Croydon. CRO 3854

PATA

INTERNATIONAL CHEMICAL COMPANY LTD

announce the following increase in prices
effective from Monday, 2nd September, 1957

PRODUCT AND SIZE	PRICE TO PUBLIC	LIST PRICE PER DOZ.	PUR. TAX PER DOZ.
"BiSoDol" Tablets (100)	4/6	33/-	9/11
"Bismag" Tablets (75)	2/-	14/9	4/5
"Bismag" Tablets (165)	3/10	28/2	8/5
"Kolynos" Super-White (Standard)	1/10	13/6	4/1
"Kolynos" Super-White (Large)	2/8	19/6	5/10
"Kolynos" with Chlorophyll	2/-	14/9	4/5
"Kolynos" Dental Cream	2/7	18/9	5/8
"Kolynos" Denture Powder (Medium)	1/6	11/-	3/4
"Kolynos" Denture Powder (Large)	2/7	18/9	5/8
"Kolynos" Denture Fixative (Medium)	1/9	15/9	—
"Kolynos" Denture Fixative (Large)	3/-	27/-	—
"Nemolin" Pile Ointment	3/10	28/2	8/5

INTERNATIONAL CHEMICAL CO. LTD., 12 CHENIES STREET, LONDON, W.C.1

**A WONDERFUL
RANGE
WITH
DEFINITE
SALES
APPEAL**



There's a Cannon hot water bottle to suit every age. From the Baby, Noah's Ark and Cottage Doll series through to the heavy general purpose Radiator they're all attractively made to give a long and useful life.

When you recommend a Cannon, you can't go wrong!

The attractive colours and ingenious packs mean increased sales appeal on your shelves, and all are made from high quality rubber.

**ASK YOUR
WHOLESALE FOR
PARTICULARS
TO-DAY**

**Cannon Rubber
PRODUCTS**

★ *Attractive Trade Terms*

THE CANNON RUBBER MANUFACTURERS LTD.
Cannon Works, Ashley Road, Tottenham, London, N.17



Enterofagos

POLYVALENT INTESTINAL BACTERIOPHAGE



**The BIOLOGICAL treatment for
most intestinal, para-intestinal,
kidney and bladder infections**

ENTEROFAGOS is one of the series of M.B.L. preparations which enjoy the confidence of the Medical profession in this country and overseas. It is of established therapeutic value in the treatment of infective conditions of the gastro-intestinal tract, kidneys and bladder.

ENTEROFAGOS contains the active bacteriophages against Staphylococci, Streptococci, B. coli, B. Typhosus, B. paratyphosus, B. dysenteriae and Enterococci. It can be given to adults or children without fear of harmful reactions, and this combination of efficacy and safety makes ENTEROFAGOS the ideal treatment for the infective conditions indicated.

The preparation is contained in ampoules to be taken orally according to the instructions supplied.

INDICATIONS

With ENTEROFAGOS most cases of Diarrhoea respond rapidly to treatment. Colitis, Enteritis, Entero-colitis, Typhoid and Paratyphoid Fevers, Bacillary Dysentery, B. Coli Infections, Food Poisoning are equally responsive to its treatment.

MEDICO-BIOLOGICAL LABORATORIES LTD.

CARGREEN ROAD
SOUTH NORWOOD
LONDON, S.E.25

in these big dailies

DAILY EXPRESS
13x5 cols — Sept. 13

DAILY MIRROR
4 full cols — Sept. 20

4-STATION TV TIE-UP

LOXENE MEDICATED SHAMPOO

"No more
shallow
shampooing
for us!"

takes good care of the family's hair

Lozene is amazingly economical. Just as Mothering makes the hair scrupulously clean. A Mr. A. B., of East Worthing puts it — "A little of it goes such a long way that it is the most economical shampoo I feel sure exists."

F. W. HAMPSHIRE AND COMPANY LIMITED · SUNNYDALE · DERBY

3 world-famous Inecto money spinners

★ COLOUR CREME

New and exciting! Rich creme in a tube that conditions as it tints. Easy and pleasant to apply. 3/4 + P.T. Retail 8/-

★ INECTO RAPID

Has a 40 year reputation as the world's supreme recolourative. Known and asked for by name. Sells and sells.

2/6 + P.T. Retail 6/-

★ FOUR-IN-ONE

As though by magic, lightens, brightens, colours and conditions. May be poured on the hair like a shampoo.

2/6 + P.T. Retail 6/-

Both restore colour permanently to grey and white hair. Complete, in the same 18 natural shades, with Picture Directions.

**Ask for free Shade Indicator.*

For hair that is drab or faded or with just that touch of greyness. In 11 lovely shades.

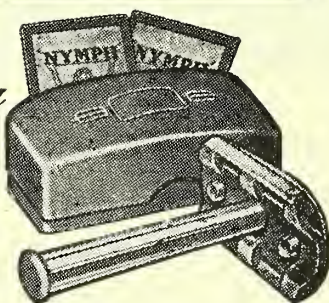
FROM YOUR USUAL WHOLESALER

Advertised on a grand scale

Enquiry Bureau : INECTO HOUSE, 27 DOVER STREET, LONDON, W.1
HYDE PARK 7541 (12 LINES)

*A Gift a Woman
gives Herself...*

*Counter
display
ensures
quick
sales*



Nymph

*ladies'
safety razor*

Backed by national
advertising



Every woman is a possible buyer of this dainty toilet accessory. Reasonably priced at 3/7½ to ensure spontaneous purchase! Complete in moulded case with 2 blades, in PINK, BLUE, GREEN. "Nymph" Blades in cartons of 6 blades, 1/6.

Obtainable from your usual wholesaler.

A PRECISION-MADE **SOUPLEX** PRODUCT

SOUPLEX LTD., MORECAMBE, LANCs.

BISMUTH ALUMINATE POWDER

As a result of extensive investigation in our laboratories we are now able to supply the above salt in the form of a fine tasteless powder.

Bismuth Aluminate is indicated in the treatment of all forms of dyspepsia. It is the most effective and economical bismuth salt yet discovered for this purpose.

Our representative will be pleased to call upon you with detailed literature and price list.



M.C.P. PURE DRUGS LIMITED

86 STRAND, LONDON, W.C.2 COVent Garden 2701

• RECOMMEND THE **BELLAPURIN**
RECTAL THERAPY



FOR RAPID RELIEF

OF

**ABDOMINAL PAINS
UTERINE INERTIA
HÆMORRHOIDS**

Supplied in boxes of 12 and 50 Suppositories.

P.A.T.A.

TECHNICAL LITERATURE AND
SAMPLES FREE ON REQUEST



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Telephone : BIS. 0843-4-5

Telegrams : PNEUMOSTAT, BETH, LONDON

and at 11 MANSFIELD CHAMBERS, ST. ANN'S SQUARE, MANCHESTER, 2



Have you seen

THIS

**new beautifully designed
show card size 23" x 17½"
in 6 bright colours?**

Supplied with two side panels each 17"x10" the whole making an attractive window display, or can be used separately as counter show cards

NOW IS THE TIME

to make a window display and ensure a steady flow of repeat orders for

"AUTUMN SUN"

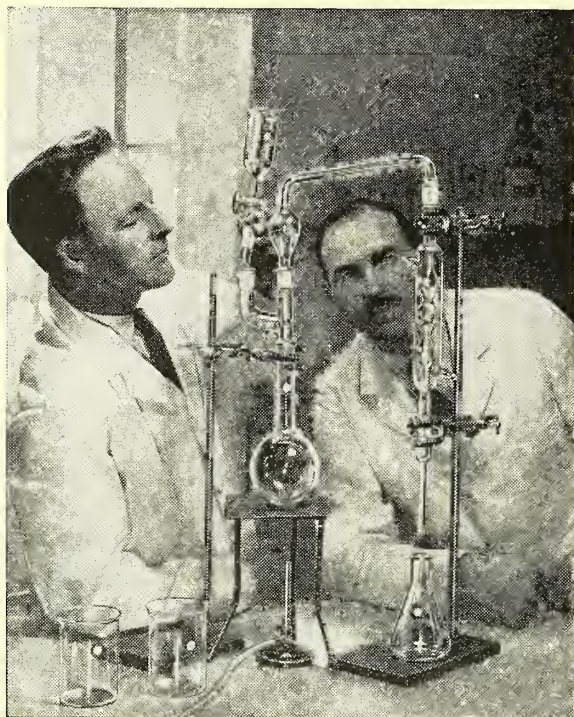
the Malt and Oil with the taking flavour

The complete set is FREE; ask our representative or write direct, sent post free.

EDME LIMITED

84-86, REGENT STREET, LONDON, W.1

Works Mistley, Essex.



'PYREX' 'Grip-Seal' Joints simplify apparatus assembly ... are 100 per cent effective

The perfect-fitting qualities of 'Grip-Seal' Joints are due to the unique 'PYREX' method of manufacture, which ensures that every joint, both male and female, is ground and tested with micrometric precision.

Further, 'Grip-Seal' design results in stronger joints, with sturdier walls, more robust beadings, and sensible parallel gripping surfaces.

The logical result is, of course, that apparatus assembly is simplified, because every joint fits closely and securely, while the clamps hold the apparatus in a firm, safe grip.

Breakages in assembling and dismantling seldom occur, and expensive apparatus is thus safeguarded to give longer service.

That's typically 'PYREX' of course... one hundred per cent satisfaction.

- A special section of the 'PYREX' catalogue deals with 'Grip-Seal' apparatus. If you would like a copy, please send your name, address and position in firm or organisation.



'PYREX'
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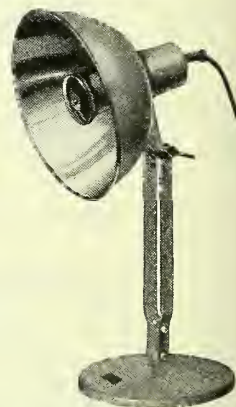
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Containing Ferrous Succinate, the new oral organic iron for the treatment of iron deficiency anaemias, specially recommended for the anaemias of pregnancy. In liquid or tablet form. *Dosage:* 1 teaspoonful/tablet t.d.s. or as prescribed. *Packs:* 4-oz., 20-oz., 40-oz., 80-oz., bottles. 100 tablets, 1,000 tablets.

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Containing Ferrous Succinate, the new oral organic iron for the treatment of iron deficiency anaemias accompanied by Vitamin B deficiency. In liquid or tablet form. *Dosage:* 1 teaspoonful/tablet t.d.s. or as prescribed. *Packs:* 4-oz., 20 oz., 40-oz., 80-oz. bottles. 100 tablets, 1,000 tablets.

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Analgesic and antipyretic tablets — containing Codeine, Phenacetin and Acetylsalicylic Acid with addition of Caffeine and Phenolphthalein to overcome side effects in the form of depression and constipation respectively. *Packs:* 10, 50, 125, 250. Tax-free dispensing packs 600, 1,000.

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A haematic compound utilising the advantages of Ferrous Gluconate for the treatment of microcytic hypochromic anaemias, iron deficiency anaemias and the anaemias of pregnancy. Available in tablet form or as an Elixir incorporating Vitamin 'B' factors. *Packs:* Bottles of 4, 20, 40, 80 fluid ozs. 100 tablets, 1,000 tablets.

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BUSINESSES FOR DISPOSAL

CHEMIST. Well-known Yorkshire coastal town. Owing to death of proprietor. Good living accommodation. Price, including property, about £7,000. S.A.V. Enquiries in first instance, Midland Bank Executor and Trustee Company, Limited, 13 Parliament Street, York. C 4909

CHEMIST, DRUGGIST, old established, main street, Torquay suburb. Few minutes sea. Single-fronted shop. Accommodation, 3 double bedrooms, etc., garden. Great scope to increase trade, at present showing £1,000 net profit average. Price, freehold, goodwill, fixtures and fittings, £4,500. R. E. Atkins, Business Transfer Specialists, 3 Fleet Street, Torquay. Tel.: 4255. C 4907

FOR SALE: Old-established firm glass blowers supplying scientific medical sundries to manufacturing chemists and wholesalers. Front shop, ideal opportunity for much needed chemists. New-built area. City. Rear large workrooms. Basement machinery, kilns, three upper floors. 21 years' lease. Moderate rental. Reasonable price. Box C 4917.

HERBALISTS. Genuine high-class business. South London. Established over 20 years. Could combine with N.H.I. dispensing business. Lock-up premises. Excellent repair. Busy main road. Progressive area. Long lease. Moderate rental. Accountants' figures available. Box C 4910.

SMALL old-established supplier of first-aid and sundry materials to industrial users wishes to dispose of business owing to other interests. Nucleus old connection of regular customers spread over U.K. Present profits could be increased considerably with aid of representatives or mail order. Full disclosure of books and accounts allowed to genuine enquirer. All possible assistance given to purchaser. Box C 4905.

APPOINTMENTS

HEALTH CENTRES Pharmacist

Applications are invited for the post of Pharmacist at the Health Centre, Sighthill, Edinburgh. The salary will be in accordance with the revised Whitley Council scale—£580 x £30 (6) x £25 (1)—£785 per annum. The appointment will be subject to the Whitley Council Conditions of Service and the National Health Service (Scotland) (Superannuation) Regulations. Canvassing disqualifies. For further particulars and form of application apply to the Clerk, Edinburgh Executive Council, "Drumshough House," 37A Drumshough Gardens, Edinburgh, 3, with whom applications should be lodged within ten days of the appearance of this advertisement. Envelopes should be marked "Pharmacist"—Health Centre. C 7046

EDUCATION DEPARTMENT OF WESTERN AUSTRALIA, TECHNICAL EDUCATION DIVISION

Applications are invited for the following position for 1958.

Lecturer in Pharmacy (Group IV)

Applicants must have a degree or other advanced qualification in Pharmacy. The appointee will be required to teach Pharmaceutics and Pharmacognosy to Diploma level and should be adequately qualified to teach in one or more of the following subjects—Pharmaceutical Chemistry, Biology (to first year University standard), Bacteriology. Teaching experience will be an advantage.

Salary range:—

Male... .. £A1,628 — £A1,838
Female... .. £A1,382 — £A1,560

Applications must be made on the prescribed form T.E.I. which can be obtained from the Western Australian Government Agency, Savoy House, 115-116 Strand, London, W.C.2, from whom further particulars, including those of travel arrangements are also available. All applications must reach the above Agency on or before October 11, 1957. C 7045

CENTRAL MIDDLESEX HOSPITAL,

PARK ROYAL, LONDON, N.W.10

Locum Pharmacist

required. Salary 15 guineas to 16 guineas per week.

Locum-in-Dispensing

also required. Whitley salary scale. Vacancies immediately for several months. Applications stating age, experience and giving names of two referees to the Medical Director. C 7037

CENTRAL GROUP HOSPITAL MANAGEMENT COMMITTEE

Senior Pharmacist and Pharmacist

required at Bethnal Green Hospital (350 Acute beds). The department has recently been modernised and is approved for training students. N.H.S. Scale within the range £680-£870 for Senior Pharmacist and £600-£815 for Pharmacist, plus appropriate higher qualification allowance. Apply with details of age, training and experience to the Group Secretary, 213 Kingsland Road, London, E.2. C 344

CENTRAL MIDDLESEX HOSPITAL,

PARK ROYAL, LONDON, N.W.10

Deputy Chief Pharmacist (Category V)

Applications are invited for this position. Whitley Council conditions of service. Salary £725 x £30 (2)—£785 x £35 (5)—£960 x £30 (1)—£990 per annum plus £25 for higher qualification plus London Weighting. Applications stating age, qualifications and experience with names of two referees to the Medical Director as soon as possible. C 7036

HIGHBURY HOSPITAL, BULWELL, NOTTINGHAM

Pharmacist

Applications are invited for Pharmacist, full-time. The post offers opportunity to obtain experience in general pharmaceutical work. Salary and conditions of service in accordance with the Pharmaceutical Whitley Council regulations. Applications, stating age, qualifications and names of two referees, to be sent to the Hospital Secretary as soon as possible. C 6957

HAMMERSMITH HOSPITAL & POST-GRADUATE MEDICAL SCHOOL, DU CANE ROAD, LONDON, W.12 (Category V)

Pharmacist

required at the above teaching hospital. Varied work and good experience. Pleasant working conditions. Previous experience not essential. Whitley salary scale (£580—£780 plus London weighting: commencing point according to experience) and conditions. Age, qualifications, experience, names two referees to Secretary as soon as possible. C 7027

HAMMERSMITH HOSPITAL & POST-GRADUATE MEDICAL SCHOOL, DU CANE ROAD, LONDON, W.12

Locum Pharmacist

required as soon as possible for several weeks. Salary by arrangement. Apply, giving particulars, to Chief Pharmacist. C 7028

KING EDWARD VII HOSPITAL, WINDSOR (Category III Hospital)

Pharmacist

required at the above hospital. Apply with details of service and names of three referees to Secretary. C 7006

LAMBETH HOSPITAL, BROOK DRIVE, S.E.11

Assistant-in-Dispensing

required at the above hospital. Whitley Council rates of pay and conditions. Applications in writing, giving names of two referees to the Secretary. C 340

LONDON JEWISH HOSPITAL, STEPNEY GREEN, E.1

Assistant-in-Dispensing

required at the above hospital. Whitley Council salary scale and conditions of service. Preference given to applicants with hospital experience. Applications stating age, experience and the names of two referees, to be sent to the Hospital Secretary. C 6984

LAMBETH HOSPITAL, BROOK DRIVE, S.E.11

(Acute General Hospital, 510 beds)

Senior Pharmacist

Applications are invited for the post of Senior Pharmacist in an expanding department. Salary (plus London Weighting) in accordance with Whitley Council Scale. Applications stating age, experience, qualifications and names of two referees to the Secretary. C 335

MEDWAY AND GRAVESEND HOSPITAL MANAGEMENT COMMITTEE, ST. BARTHOLOMEW'S HOSPITAL, ROCHESTER (201 beds)

Pharmacist

(Full-time or part-time) required for busy general hospital; good experience. Recognised salary scale and conditions of service. Applications, giving full details of experience and names of two referees, to the Hospital Secretary. C 7044

BERDOE & FISH*Chemists' Transfer Agents and Valuers***41 ARGYLE SQUARE, KING'S CROSS, W.C.1**
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HOSPITAL GROUP****Pharmacist
Locum Pharmacist
Assistant-in-Dispensing**

Applications are invited for the above posts at Whipps Cross Hospital, London, E.11. The hospital is ideally situated, being on the Central Underground Line within 20 minutes of Central London. Application forms from the Hospital Secretary to be returned as soon as possible. C 342

**LONDON HOSPITAL ANNEXE,
ONGAR ROAD,
BRENTWOOD, ESSEX****Assistant-in-Dispensing**

required at this 200-bed Annexe. Preference given to candidates holding the Certificate of the Society of Apothecaries. Salary in accordance with Whitley Council Scale. Write, House Governor, The London Hospital, Whitechapel, E.1. C 334

**MILE END HOSPITAL,
BANCROFT ROAD, LONDON, E.1****Student Pharmacist**

Vacancy for student pharmacist from October 1, 1957. Post-graduate student for one year or pre-graduate for two years. Whitley Council salary scale and conditions of service. Applications to be sent to the Chief Pharmacist. C 7025

**ST. MATTHEW'S HOSPITAL,
BURNTWOOD, LICHFIELD,
STAFFS****Assistant-in-Dispensing**

required. Salary £170 rising to £510 per annum according to age and qualifications. Whitley Council conditions of service. Applications, giving age, qualifications and details of experience, together with names of two referees, should be sent immediately to the Hospital Secretary. C 7031

**SOUTH-WEST DURHAM
HOSPITAL MANAGEMENT
COMMITTEE,
HOLYWOOD HALL HOSPITAL,
WOLSINGHAM****Chief Pharmacist (Category II)**

required at the above hospital. Salary £725—£990 per annum plus £25 if holding higher qualification. N.H.S. conditions and superannuation. Application forms from the undersigned to be returned by September 14, 1957.

K. G. T. LUXFORD,

Group Secretary/Finance Officer. C 7026

**SOUTH WESTERN HOSPITAL,
LANDOR ROAD, S.W.9****Locum Pharmacist**

required for week October 7 to 12 inclusive. £17 17s. per week. Apply to Secretary. C 7048

**ST. MATTHEW'S HOSPITAL,
BURNTWOOD, LICHFIELD,
STAFFS****(1,330 Psychiatric Beds)****Pharmacist**

Applications are invited from suitably qualified persons for the post of Pharmacist. Salary £580 x £30 (6) — £760 x £25 (1) — £785 per annum, according to previous experience and service. Applications, giving full particulars and names of two referees, should be sent to the Hospital Secretary, as soon as possible. C 7030

TAUNTON AND SOMERSET**HOSPITAL
(423 beds)****Assistant-in-Dispensing**

required for Group Pharmacy. Certificate of Society of Apothecaries of London or equivalent qualification essential.

Salary in the scale £395 (at 22 years) to £510 per annum.

Applications giving full details of age and experience to the Group Secretary, Taunton Hospital Management Committee, c/o Musgrave Park Hospital, Taunton, immediately. C 343

**THE LONDON HOSPITAL,
WHITECHAPEL, E.1****Registered Pharmacist**

Vacancy exists for the above post. Salary £580 x £30 (6) — £760 x £25 (1) — £785 according to previous experience and service. Accommodation available for women staff, if required, in hotel in Kensington run by the hospital. Write to House Governor. C 330

**WALSALL HOSPITAL
MANAGEMENT COMMITTEE****Deputy Chief Pharmacist**

required (Category IV); duties mainly concerned with control of modern manufacturing and aseptic unit. Applications, together with names of two referees, to Group Secretary, General (Sister Dora) Hospital, Walsall. C 7024

**WEST MIDDLESEX HOSPITAL,
ISLEWORTH, MIDDLESEX****Pharmacist and Assistant-in-Dispensing**

required. Whitley salary and conditions applicable. Applications stating age, qualifications and experience with names of two referees to Chief Pharmacist. C 7043

BUSINESSES WANTED**WELL-KNOWN** public company requires wholesale or manufacturing business in South of England with turnover in excess of £50,000 per annum. Ample capital available. Please apply Box C 7052.**SITUATIONS VACANT****RETAIL HOME****ILFORD.** Experienced Manager required for a cosmopolitan and substantial business in main high road. There is a four-figure salary, with opportunities for further development. Applications in first instance, giving full details and when available for interview, to Box C 4914.**LONDON CO-OPERATIVE CHEMISTS, LTD.,** have vacancies in various parts of London for Post-graduate Students. An excellent training can be given in modern pharmaceutical establishments with the possibility at the completion thereof of a substantial branch managerial appointment. Applications in writing to Chief Pharmacist, Grange Road, Leyton, London, E.10, when an appointment will be arranged for discussion. C 4915**WALTHAMSTOW.** Pharmaceutical chemist required to manage substantial business with a salary structure of some £1,100 per annum. A house at an economical rental would be available if required. The successful candidate will be eligible for the Company's superannuation scheme. Apply, stating full details and when available for interview, to Box C 4912.**WANTED** qualified male assistant. Stockton Heath, Warrington. Suit newly qualified. Good salary. H. Turton, Ltd., 76 London Road, Stockton Heath, nr. Warrington. C 7001**EVANS MEDICAL SUPPLIES LTD.****Medical Representatives—London Area**

Applications are invited for appointment to the medical representative staff in the London area from persons preferably holding a pharmaceutical qualification. Adequate initial training will be given in the highly specialised work of detailing the Company's medical specialities, and all necessary measures of support are in operation.

The Company operates a Pensions and Life Assurance Scheme and the conditions of employment have an attractive career value.

Write with full details of education, qualifications and experience to the Pharmaceutical Director, Evans Medical Supplies Ltd., Speke, Liverpool, 19.

C 7050

WHITTON, MIDDLESEX. Managing pharmacist required for modern and attractive business in main thoroughfare. The post provides a substantial salary structure, plus commission on increased returns and participation in superannuation benefits. Good supporting staff. Flat available if desired. Applications in writing to Chief Pharmacist, London Co-operative Chemists, Ltd., Grange Road, Leyton, E.10. C 4913**YOUNG, ENERGETIC PHARMACIST** required to develop high-class pharmacy in North London. Excellent opportunity for initiative. Good salary. Reply Box C 4919.**LOCUMS WANTED****£25 PER WEEK.** Locum Pharmacist required for six weeks commencing September 16th. Adequate staff; no rotas; excellent conditions. Apply, giving full details, to Superintendent Chemist, Peterborough Co-operative Chemists Ltd., Westgate, Peterborough. C 4885**LONDON.** Locum chemists pharmacists are required to undertake an autumnal and winter tour of duties in the London area. There will be a substantial salary and expense structure. Applications in first instance to Chief Pharmacist, London Co-operative Chemists, Ltd., Grange Road, Leyton, E.10. C 4916**WHOLESALE****ABBOTT LABORATORIES LIMITED**

desire to engage a pharmacist to fill a position in the department responsible for the development of pharmaceutical formulations. Preference will be given to Bachelors of Pharmacy and Fellows of the Society. In addition to this sound pharmaceutical and scientific training, an inventive and imaginative mind will be an essential quality. Previous experience in the formulation of pharmaceutical products will be an advantage but not essential. Please write in full details of education and career to date to the Secretary, Abbott Laboratories, Limited, Bede Trading Estate, Jarrow, co. Durham. Reference H.L. C 7020

A FOREMAN is required for the pharmaceutical processing department of well established and progressive firm of manufacturing chemists in South Manchester area. Excellent prospects for the right man. Apply, Technical Director, Box C 6954.**ALLIED LABORATORIES, LIMITED**

Applications are invited for two medical representatives in Yorkshire:—

(a) resident in Leeds/Bradford area.

(b) resident in Sheffield area.

These are well-established territories and generous remuneration is offered to men who can take over and further develop the connection. Previous experience not essential as training is given, but sound medical or pharmaceutical background is necessary. Life assurance and pension scheme. Car ownership desirable. Full details in confidence to Sales Manager, Allied Laboratories, Ltd., 140 Park Lane, London, W.1. C 6969

PFIZER LTD

due to continued expansion, wish to enlarge their
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and invite applications for vacancies in the
following areas:—

SCOTLAND	LONDON
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YORKSHIRE	MIDDLESEX

The Company is a British subsidiary of a leading American ethical pharmaceutical house. Preference will be given to applicants with pharmaceutical qualifications or background. Good starting salary and expenses. Car provided. Non-contributory Pension Scheme. Previous applicants need not re-apply.

Applications, giving full particulars of age, experience etc., should be made in writing to the Personnel Officer:
137/139, Sandgate Road, Folkestone, Kent,
quoting ref. TN/2857.

C 6978

EVANS MEDICAL SUPPLIES LTD.**Sterile Products Unit**

A young Pharmacist who, if not already experienced, is interested in being trained in a wide range of sterile production work, is required to assist the Manager of the Sterile Products Unit. The appointment will offer opportunities for advancement to a suitable candidate. A five-day week and Pension and Life Assurance Scheme are in operation.

Applications should be made in the first instance, giving full details of education, qualifications, age and experience, to the Pharmaceutical Director, Evans Medical Supplies, Ltd., Speke, Liverpool, 19.

C 7051

PHARMACEUTICAL ANALYST

Applications are invited from persons holding suitable qualifications in Chemistry or Pharmacy to take charge of Control laboratory. The work covers pharmaceutical products, surgical dressings and plasters. Opportunities will be open for investigation and development in these fields. Five-day week. Pension scheme.

Please forward applications with details of experience and salary required to: Pharmaceutical Director, Messrs. Cuxson, Gerrard & Co. Limited, Fountain Lane, Oldbury, Birmingham.

C 7000

Situations Vacant—Continued

EXPERIENCED PRICING CLERK required. Permanent and progressive position. Apply by letter, or call any morning (except Sat.), Staff Manager, Butler & Crispe, Ltd., Wholesale Chemists, 80/4 Clerkenwell Road, E.C.1.

C 6935

FACTORY MANAGER required by London manufacturing chemists with experience of maintenance, staff control, programme planning, costing and stock control. State age, experience and salary required to Box C 7033.

MEDICAL REPRESENTATIVES, either sex, required for London area. Experienced in calling on General Practitioners. Whist preference will be given to pharmacist, applicants should give adequate details of experience, education and/or academic attainment, to warrant consideration. Excellent position with good prospects offered to successful applicants. Apply in writing to the Managing Director, Biorex (marketing), Ltd., 47/51 Exmouth Market, London, E.C.1.

C 7029

MAY & BAKER, LTD., of Dagenham, Essex, invite applications from young men (aged 21-30 years) for the position of technical assistant in their pharmaceutical chemical sales division. Candidates should have a B.A. (Cantab)/B.Pharm. or Ph.C. degree. Contributory pension scheme. Apply initially in writing to the Personnel Officer, quoting Reference No. 142.

C 7014

MEDICAL REPRESENTATIVES

Due to the expansion of business, Sandoz Products, Limited, invite applications from young men for the appointment of Medical Representative in the following areas:—

1. N.E. London and Essex.
 2. North Scotland.
 3. North-west Scotland and Glasgow.
- Attractive salary according to qualifications and experience. Superannuation scheme in operation. Thorough training given. Applicants should be Pharmacists. Please send full details of age, education, qualifications and experience, together with a photograph (which will be returned), to Sandoz Products, Ltd., Pharmaceutical Department, Sandoz House, 23 Great Castle Street, London, W.1.

C 7039

MERCK SHARP & DOHME**MEDICAL REPRESENTATIVES**

If you are interested in joining the Medical Representative Staff of an expanding and progressive Organisation then you are invited to apply for newly created positions in various areas throughout the U.K. including London and Home Counties, Midlands, Nottinghamshire, Lincolnshire, Lancashire, Yorkshire, and South of England.

The positions offer the opportunity to promote the products of a Company with the backing of one of the world's largest research Organisations in the pharmaceutical field.

Applicants should be under 35 years of age and if not possessing a pharmaceutical qualification, should have a good pharmaceutical or medical background. Previous experience is not considered essential as training will be given.

Commencing salary will be commensurate with age and experience and will be subject to regular review.

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Apply:

**Sales Manager,
Merck Sharp & Dohme, Ltd.,
Hoddesdon, Herts.**

C 7035

OLD-ESTABLISHED manufacturing chemists in Midlands require a young qualified chemist or A.R.I.C. with manufacturing experience for laboratory. Good prospects. Five-day week. Apply stating age, experience and salary required to Box C 4911.

PACKAGING MANAGER, qualified or unqualified, required by Fine Chemical Manufacturers in North London area to control packing department with present staff of about 12. Fully detailed applications, which will be treated in strict confidence, should be sent to Box C 7034.

MEDICAL REPRESENTATIVES. A progressive and rapidly expanding pharmaceutical company requires a number of representatives to augment its present field force in the United Kingdom. They will undertake the personal promotion of a range of first-class ethical products to the medical profession. Applications are invited from young men (25-35) capable of tackling an individualistic job with enthusiasm. Selected candidates will be given a full course of training at the Company's head offices. Salary and generous expense allowances. Company car supplied, non-contributory pension scheme. Apply to the Personnel Officer, Smith Kline & French Laboratories, Ltd., 120 Coldharbour Lane, London, S.E.5.

C 7032

PHARMACISTS

A Pharmacist is urgently required to supervise filling of sterile products. Previous experience preferable but not essential. The post is attractive in that it is a responsible one in an expanding organisation in one of the newest modern factories in Great Britain. Working conditions are excellent and a Pension and Life Assurance Scheme is in operation. Suitable candidates will be interviewed at the company's expense. Applications with details of age, education, experience and salary required should be made to:—

**The Labour Manager,
WINTHROP LABORATORIES, LTD.,
Edgefield Avenue,
Newcastle-upon-Tyne, 3**

C 7041

PROCESS WORKER required for manufacturers of hair preparations. Must be experienced and reliable. Wages according to capabilities. Good working conditions. Apply with fullest details to Box C 7038.

REPRESENTATIVE to call on chemists in Eastern Counties and London (S.E., S.W. & E.) areas required by pharmaceutical house marketing public and ethical products. Salary, commission and expenses. Pension scheme. Car provided. Apply giving age, experience and relevant details to Sales Manager, Box C 7018.

Situations Vacant—Continued

PRODUCTION CHEMIST required by internationally operating cosmetic company. Young, single, qualified man preferred, experience in manufacture of cosmetics or pharmaceuticals. French, Spanish, or German an advantage. Work would involve considerable travelling, setting up manufacturing operations and assisting in control of existing overseas production. Salary by arrangement. Please send full details to Personnel Officer, Box C 4901.

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Winthrop Laboratories, Ltd., invite applications from experienced tablet makers for a position in their new Pharmaceutical Manufacturing Factory at Fawdon. This is first-class ethical work only and the successful candidate will be able to participate in the pension and life assurance scheme, subsidised canteen meals and excellent welfare facilities. Applications with details of age, education and experience to date should be made to:

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WINTHROP LABORATORIES, LTD.,
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Newcastle-upon-Tyne, 3. C 7005

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Owing to continued expansion, a London firm of Wholesale Chemists have immediate vacancies as follows:—

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WINTHROP LABORATORIES, LTD.,

require a young Qualified Chemist for a progressive position in their new organic research laboratory. Applicants should have at least two years' industrial experience but, in exceptional cases, newly qualified candidates will be considered. This appointment offers good prospects with excellent working conditions. Welfare facilities include subsidised canteen, modern surgery and pension and life assurance scheme from the age of 30 onwards. Applications stating age, experience and salary required should be made to:

The Labour Manager,
WINTHROP LABORATORIES, LTD.,
Edgefield Avenue,
Newcastle-upon-Tyne, 3. C 7012

THE BRITISH DRUG HOUSES LTD. invite applications from Pharmacists for the post of Medical Representative in Norfolk, Suffolk, Bedfordshire and Cambridge. 5-day week, pension and profit sharing schemes. Applications should be addressed to: Personnel Manager, Graham Street, London, N.1. C 7022

WANTED, laboratory assistant with qualification or experience for the analysis of food and drugs in a factory in pleasant surroundings in the Watford district. Five-day week, canteen and recreational facilities. Apply giving details of experience and salary required to: Box C 6936.

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WINTHROP LABORATORIES, LTD.,

invite applications from Senior Production Chemists for the post of Plant Manager at their organic synthetic plant, manufacturing pharmaceuticals. Applicants should have a minimum of five years' experience in the manufacturing of organic chemicals by batch process. The post offered is attractive in that it is a senior appointment in a new company. Working conditions are excellent and a pension and assurance scheme is in operation. Suitable candidates will be interviewed at the company's expense and house purchase assistance, if required, will be given to the successful candidate. Applications with details of age, education and experience should be made to:

The Labour Manager,
WINTHROP LABORATORIES, LTD.,
Edgefield Avenue,
Newcastle-upon-Tyne, 3. C 7013

WHOLESALE (OVERSEAS)

RHODESIA. A leading pharmaceutical house invites applications from suitably qualified persons to fill an important vacancy in the sales force of their Branch Organisation in Salisbury. This position will appeal to young single pharmacists, aged 25-32, with sound retail or hospital background. Representative experience will carry some measure of preference. The position offers scope for advancement to senior status within a growing organisation. Full training will be given in the U.K. Apply initially in writing to Box C 6989.

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IRISH PHARMACIST (L.P.S.I.), lady, desires locum, London area, long or short term, wide managerial and dispensing experience. Retail or Hospital. Excellent references. State terms. Box C 4899.

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WHOLESALE

MAN seeks position as process worker in cosmetic industry. Experienced, hard worker. Good reason for seeking new work. Box C 4906.
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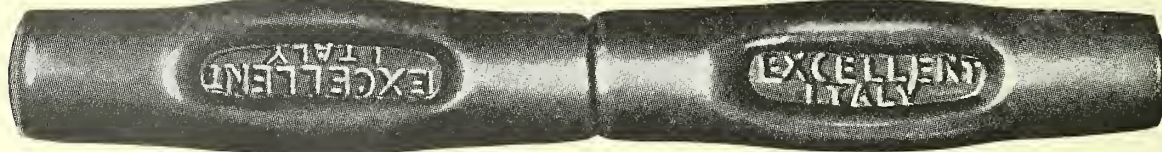
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